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13. ABSTRACT (Maximum 200 words)

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THIRD SUPPLEMENT TO "A CATALOG OF THE MOSQUITOES OF THE WORLD" (DIPTERA: CULICIDAE)

RONALD A. WARD^{1,2}

Department of Entomology, Walter Reed Army Institute of Research, Washington, DC 20307-5100

ABSTRACT. Additions and changes in the taxonomic status of mosquitoes from January 1984 through January 1992 are enumerated with the pertinent literature citations. Through this eight-year period, there were described nine new subgenera, 128 new species and one new subspecies. One subgenus, 25 species and 16 subspecies or varieties were removed from synonymy. The status of 66 taxa, including synonyms, were changed by transfers in generic or subgeneric status. Since 1984 there has been a net change of 145 species added to the world mosquito fauna, resulting in a total of 3,209 valid species.

INTRODUCTION

Eight years have passed since the publication of the second supplement to the world catalog of mosquitoes (Ward 1984). Since there are no plans for a revision of the world catalog of Knight and Stone (1977) in the near future, this supplement has been compiled to cover the systematic literature from January 1, 1984 through January 31, 1992.

The arrangement of this supplement is similar to that of the second supplement (Ward 1984) except that additional information is provided concerning the sex or stage of the holotype, changes in the deposition of type material and 24 Taxonomic Notes.

All publications containing descriptions of new taxa, revisions and catalogs have been examined with one exception. Lei 1989. In cases where further clarification was required, correspondence with an author or collection manager usually provided the necessary information. Such material is discussed in the Taxonomic Notes.

Valid taxa are indicated by italicized type

while synonyms are underlined and in roman type. The life history stages described in the original paper are indicated by the symbols: δ (male), Ω (female), Ω (pupa), L (larva), E (egg), Pe (pupal exuviae) and Le (larval exuviae). An asterisk (*) to the right of a symbol indicates an accompanying illustration of at least a portion of the stage described. Type depositories are referenced by a three- or four-letter abbreviation. With the exception of 11 depositories cited at the end of this paper, the full locations for types are listed in Knight and Stone (1977), Knight (1978) and Ward (1984).

A change has been made for dating papers published in the calendar year following the date printed on the cover of the periodical. To simplify bibliographies, such a paper is listed as: Smith, J. 1990. A new species of (Diptera: Culicidae). J. Mosq. Res. (1989) 23:391-397, rather than: Smith, J. 1989 (1990), etc. Complete citations for references given in the synonymies may be found in Knight and Stone (1977). Knight (1978) and Ward (1984).

A number of new synonyms were cited in the Culicidae chapter (Minar 1991) of the Palaearctic Diptera catalog. Since no indication was given for a reference substantiating the new synonymy, and a letter to J. Minar elicited no response, these synonymies are not mentioned in this supplement.

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number of species. The Smithsonian Institution Libraries were extremely helpful in obtaining many of the Chinese references.

A special acknowledgment is due my daughter, Katherine B. Ward, for cheerfully processing the numerous drafts of this manuscript. The final preparation of the diskette was accomplished by J.E. Pecor, who always does a superb job.

Family Culicidae Subfamily Anophelinae Genus Anopheles Meigen Subgenus Anopheles Meigen

anthropophagus Xu and Feng

Ma 1981:60 (from subspecies of lesteri).

atratipes Skuse

Lee et al. 1988a:16 (holotype 9; change MM to ANIC).

baezai Gater

Lee et al. 1988a:20 (erroneous publication date, change 1933 to 1934).

bailevi Edwards

Harrison et al. 1991:209 (from variety of gigas).

barbumbrosus Strickland and Chowdhury

pallidus Swellengrebel, 1919. Townsend 1990:116 (?syntype & change NE to BM).

calderoni Wilkerson

1991: 25 (♂*, ♀*, P*, L*). Type loc.: Salitral, Department of Piura, Peru (holotype ♀; USNM).

changfus Ma

1981:65 (♂*, ♀*, E). Type loc.: Emei, Sichuan Prov., P.R. China (holotype ♀; IZ).

chiriquiensis Komp

Wilkerson 1990a:179 (from synonymy with parapunctipennis).

claviger (Meigen)

grisescens Stephens, 1828. Townsend 1990:80 (2 syntypes; change LU to BM).

colledgei Marks

Townsend 1990:62 (holotype & change UQ to ANIC).

corethroides Theobald

Marks 1976:118 (listed as species). Lee et al. 1988a:54 (verification as species from synonymy of stigmaticus). (Note 1).

coustani Laveran

similis Theobald, 1901. Townsend 1990:134 (unavailable name: Article 11e, ICZN 1985). cucphuongensis Phan, Manh, Hinh and Vien

1991:145 (&*, \textstyre ?*, P*, L*). Type loc.: Cuc-Phuong, Ha-Nam-Ninh Prov., Vietnam (holotype \textstyre ; USNM).

dazhaius Ma

1981:65 (♂*, ♀*, E*). Type loc.: Sichuan Prov., P.R. China (holotype ♀: IZ).

fragilis (Theobald) Townsend 1990:75 (2 syntypes; change NE to BM). franciscanus McCracken Arnaud 1979:57 (lectotype & change LACM to CAS). gigas Giles var. simlensis (James, 1911). Townsend 1990:134 (3 syntypes; change LU to BM). ssp. pantjarbatu Waktoedi. 1954 (authorship changed from Koesoemawinangoen to Waktoedi). (Note 2). heiheensis Ma 1981:66 (♂*, ♀*, E). Type loc.: Aihui, Heilungjiang Prov., P.R. China (holotype ♀: !Z). hermsi Barr and Guptavanij 1989:353 (& Q. P. L. E). Type loc.: Malibu Canyon at Pacific Coast Hwy., Los Angeles County, California, USA (holotype 9 & Pe.Le; USNM). kunmingensis Dong and Wang 1985:117 (♂*, ♀*, P*, L*, E*). Type loc.: Long-tan Ba, Kunming, Yunnan Prov., P.R. China (holotype \mathfrak{P} ; YIM). liangshanensis Kang, Tan, Cao, Cheng, Yang and Huang 1984:11 (&*, \Partial *, P, L*, E*). Type loc.: Zhaojiao County, Sichuan Prov., China (holotype ♀. SIP). malefactor Dyar and Knab Wilkerson 1990b:235 (from synonymy with punctimacula). marteri Senevet and Prunelle Townsend 1990:101 (4 syntypes: add BM). sogdianus Keshishian, 1938. Ribeiro et al. 1987:108 (synonymy). mediopunctatus (Theobald) rockefelleri Peryassu, 1923. Townsend 1990:128 (?syntype: change LU to BM). namibiensis Coetzee 1984:2 (ô, ♀*, P*, L*, E). Type loc.: Mahongo, Kavango, Namibia (holotype ♀: USNM). nigerrimus Giles indiensis Theobald, 1901. Townsend 1990:86 (change BM to NE). nilgiricus Christophers Harrison et al. 1991:199 (from subspecies of *lindesayi*). paraliae Sandosham Harrison et al. 1991:208 (from subspecies of *lesteri*). parapunctipennis Martini Wilkerson 1990a:180 (neotype & desig.). ssp. guatemalensis De Leon, 1938. Wilkerson 1990a:181 (from variety to subspecies; lectotype ♀ desig.). petragnani Del Vecchio portucaliensis Figueiredo, 1904. Ribeiro et al. 1988:235 (from variety of bifurcatus auct. to synonymy with petragnani). pevtoni Kulasekera, Harrison and Amerasinghe 1989:303 (c*, 9, P*, L*). Type loc.: Kanneliya, Galle District, Sri Lanka (holotype c &: Pe,Le; USNM). stigmaticus Skuse Lee et al. 1988a:95 (2 syntypes; change MM to ANIC).

DITIC QUALITY INSPECT

subalpinus Hackett and Lewis

Ribeiro et al. 1988:23 - (from subspecies of melanoon).

xiaokuanus Ma

1981:67 (3*, 9*, E*). Type loc.: Mudangjiang, Heilungjiang Prov., P.R. China (holotype 9; IZ).

Subgenus Cellia Theobald

annularis Van der Wulp

fuliginosus Giles, 1900. Townsend 1990:76 (2 syntypes; change NE to BM).

annulatus Haga

Lee et al. 1988a:133 (lectotype & desig.: BM). Townsend 1990:43 (2 syntypes: improper attribution).

annulipes Walker

musivus Skuse. 1889. Lee et al. 1988a:136 (type 9: change MM to ANIC).

mastersi Skuse. 1889. Lee et al. 1988a:136 (3 syntypes: change MM to ANIC).

perplexus Taylor, 1943. Lee et al. 1988a:136 (lectotype & desig.; change US to ANIC).

persimilis Taylor, 1943. Lee et al. 1988a.136 (type 9; change US to ANIC).

derricki Taylor, 1943. Lee et al. 1988a:136 (lectotype & desig.; change US to ANIC).

apoci Marsh

Townsend 1990:44 (2 syntypes: change LU to BM).

arabiensis Patton

<u>quadriannulatus davidsoni</u> Ribeiro, Cunha Ramos, Pires and Capela, 1979. Cambournac et al. 1982:266 (synonymy).

argenteolobatus (Gough)

pseudosquamosa Newstead and Carter, 1911. Townsend 1990:124 (holotype: change LSTM to BM).

huxtoni Service

Townsend 1990:55 (lectotype & desig.; BM).

bwambae White

1985:506 (3*, 9*, P*, L*, E*). Type loc.: Mongiro, Semliki Forest, Bwamba County, Uganda (holotype 9; BM).

cameroni de Meillon and Evans

Townsend 1990:57 (holotype; change SAIM to BM).

carteri Evans and de Meillon

Townsend 1990:58 (6 syntypes: change LSTM to BM).

cinereus Theobald

ssp. hispaniola (Theobald, 1903). Ribeiro et al. 1980:132 (from species to subspecies).

cvdippis de Meillon

Segerman 1990:53 (holotype; from SAIM to LU).

dancalicus Corradetti

Townsend 1990:65 (3 syntypes; add BM).

daudi Coluzzi

Townsend 1990:65 (syntype; add BM).

dispar Rattanarithikul and Harbach

1991:176 (&*, \text{\$\text{?}}, \text{\$\text{P*}}, \text{\$\text{L*}}). Type loc.: Subic Bay, Pastolan, Bataan Prov., Luzon, Philippines (holotype \text{\$\text{?}}: USNM).

dravidicus Christophers

Rattanarithikul and Green 1987:261 (from synonymy of *maculatus*; lectotype ? desig.; BM).

elegans James

Townsend 1990:70 (improper "type" desig.; BM).

erepens Gillies

Gillies and Coetzee 1987:95 (from subspecies of wellcomei).

ethiopicus Gillies and Coetzee

1987:76 (♀*). Type loc.: Gambela, Illubabor Prov., Ethiopia (holotype ♀: BM).

fluviatilis James

arabica Christophers and Chand. 1915. Townsend 1990:45 (?2 syntypes; change LU to BM).

funestus Giles

anisochloros Theobald, 1903. Townsend 1990:43 (syntype: change NE to BM).

subumbrosa Theobald. 1903. Townsend 1990:138 (syntype; change LSTM to BM).

<u>umbrosa</u> Theobald, 1903 (*non umbrosus* Theobald 1903:87). Townsend 1990:145 (syntype; change NE to BM).

greeni Rattanarithikul and Harbach

1991:170 (♂, ♀*, P*, L*). Type loc.: Wawa, Montalban, Rizal Prov., Luzon, Philippines (holotype ♀; USNM).

indefinitus (Ludlow)

formosaensis II Tsuzuki, 1902. Townsend 1990:74 (syntype & change LU to BM).

introlatus Colless

Hii et al. 1988:43 (from subspecies of balabacensis).

jevporiensis James

Harrison 1980:69 (change BM to LU).

kochi Doenitz

Townsend 1990:91 (syntype; add BM).

ocellatus Theobald, 1901. Townsend 1990:114 (unavailable name; Article 11e, ICZN 1985).

kosiensis Coetzee, Segerman and Hunt

1987:26 (P. P. L., E*, X-chromosome*). Type loc.: Kosi Bay, northern Zululand, South Africa (holotype P & Pe,Le; SAIM).

leucosphyrus Doenitz

Townsend 1990:94 (2 syntypes; add BM).

lounibosi Gillies and Coetzee

1987:73 (Q, L*). Type loc.: Kombeni River, Rabai, Kilifi Dist., Kenya (holotype L; BM). (Note 3).

ludlowae (Theobald)

ssp. torakala Stoker and Waktoedi, 1949 (authorship changed from Koesoemawiwangoen to Waktoedi). (Note 2).

macarthuri Colless

Hii et al. 1988:43 (from subspecies of riparis).

maculatus Theobald

Rattanarithikul and Green 1987:252 (lectotype & desig.; BM).

majidi Young and Majid

Townsend 1990:100 (5 syntypes; add BM).

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mangyanus (Banks)
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McCabe and Johnson 1980:28 (syntype 9: change NE to NY).

nemophilous Pevton and Ramalingam

1988:276 (δ^* , Ω^* , Ω^* , Ω^*). Type loc.: Ban Bang Ra Ko, Phangnga Prov., Thailand (holotype Ω^* & Pe,Le; USNM).

notanandai Rattanarithikul and Green

1987:259 (♂, ♀*, E*). Type loc.: Ban Tah Cha Lao, Tha Yang, Phetchaburi Prov., Thailand (holotype ♀ & Pe,Le; USNM).

paltrinierii Shidrawi and Gillies

1988:202 (&*, \, \, \, P, L*). Type loc.: Dank River and Nizra River, Oman (holotype \, \, \, BM). pauliani Grjebine

Townsend 1990:118 (add L syntype; BM).

pharoensis Theobald

bozasi Neveu-Lemaire, 1905. Rodhain and Boutonnier 1985:273 (2 syntypes: change FMP to PIP).

pseudojamesi Strickland and Chowdhury

ramsayi Covell, 1927. Nurul Huda and Harrison 1985:49 (synonymy).

pseudowillmori (Theobald)

Rattanarithikul and Green 1987:252 (from synonymy with maculatus).

punctulatus Doenitz

Townsend 1990:125 (add 3 syntypes; BM).

ranci Grjebine

Townsend 1990:127 (add 2 syntypes: BM).

salbaii Maffi and Coluzzi

Townsend 1990:130 (add 40 syntypes; BM).

sawadwongporni Rattanarithikul and Green

1987:256 (♂, ♀*, E*). Type loc.: Ban Thung Khua Mu, Rong Kwang, Phrae Prov., Thailand (holotype ♀ & Pe, Le; USNM).

somalicus Rivola and Holstein

Townsend 1990:135 (add 2 L syntypes: BM).

squamosus Theobald

tananariviensis Ventrillon, 1906. Townsend 1990:140 (add ?syntype; BM).

stephensi Liston

Townsend 1990:136 (2 syntypes; change LU to BM).

sulawesi Waktoedi

Hii et al. 1988:43 (authorship changed from Koesoemawinangoen to Waktoedi).

tchekedii de Meillon and Leeson

Segerman 1990:53 (change BM and SAIM to BM).

tessellatus Theobald

ssp. kalawara Stoker and Waktoedi, 1949 (authorship changed from Koesoemawinangoen to Waktoedi). (Note 2).

theileri Edwards

albipes Theobald, 1911. Townsend 1990:39 (add 2 \(\text{syntypes}; \) BM).

turkhudi Liston

amutis De Burca, 1943. Townsend 1990:42 (lectotype & desig.; BM).

vagus Doenitz

<u>albino</u> Stoker and Waktoedi. 1949 (authorship changed from Koesoemawinagoen to Waktoedi). (Note 2).

vaneedeni Gillies and Coetzee

1987:81 (♂*, ♀*, P, L). Type loc.: Pusela, Tzaneen, South Africa (holotype ♀; BM). (Note 4).

varuna Ivengar

Townsend 1990:147 (specimens not syntypes; type loc. India, not Sri Lanka, see Iyengar 1924:25). (Note 5).

vinckei de Meillon

Segerman 1990:53 (holotype; change SAIM to LU).

willmori (James)

Rattanarithikul and Green 1987:254 (emend. from willmorei to original spelling: from variety of maculatus; lectotype Q desig., BM).

dudgeonii Theobald, 1907. Townsend 1990:69 (erroneous attribution of lectotype desig. to Rattanarithikul and Green 1987:256).

maculosa James and Liston, 1911. Rattanarithikul and Green 1987:256 (lectotype 9 desig.: BM).

Subgenus Nyssorhynchus Blanchard

albitarsis Lynch Arribalzaga

Rosa-Freitas and Deane 1989:289 (neotype ♀ desig.; IOC).

deaneorum Rosa-Freitas

1989:535 (&*, Q*, P. L*, E). Type loc.: Guajara-Mirim, Palheta. Rondonia State. Brazil (holotype Q: IOC).

marajoara Galvao and Damasceno

Linthicum 1988:198 (from synonymy with albitarsis; holotype in FMSP).

domesticus Galvao and Damasceno. 1944. Linthicum 1988:198 (synonymy).

nigritarsis (Chagas)

Townsend 1990:110 (? syntype 9: change LU to BM).

sawveri Causey, Deane, Deane and Sampaio

Linthicum 1988:155 (from subspecies of argyritarsis).

Genus *Bironella* Theobald Subgenus *Brugella* Edwards

hollandi Taylor

Lee et al. 1988d:47 (holotype & change US to ANIC).

Subgenus Neobironella Tenorio

derooki Soesilo and Slooten

Evenuis and Gon 1989:194 (from synonymy of soesiloi). soesiloi Strickland and Chowdhury, 1931. Evenhuis and Gon 1989:194 (synonymy).

Subfamily Culicinae

Tribe Aedini

Genus Aedes Meigen

Subgenus Aedes Meigen

dahuricus Danilov

1987b:41 (♂*, ♀*, L*). Type loc.: Kubukhai, Onan District, Chita Prov., USSR (holotype ♀ & Le; IMP).

mubiensis Luh and Shih

1958:226 (8*, 9). Type loc.: Mubien, Guanxi Autonomous Region, China (AMC).

Subgenus Aedimorphus Theobald

aerarius McIntosh

Segerman 1990:53 (holotype from SAIM to NIV).

albodorsalis Fontenille and Brunhes

1985:151 (♀*). Type loc.: Fenerive, Tamatave Prov., Madagascar (holotype ♀; MNHP).

bambiotai Geoffroy

1987:101 (δ^* , Ω^* , Ω^*). Type loc.: Andiopodoume forest, Ivory Coast (holotype Ω^* : USNM). (Note 6).

bancoi Geoffroy

1987:103 (3*). Type loc.: Banco forest, near Abijan, Ivory Coast (holotype &: USNM).

masoalensis Fontenille and Brunhes

1985:153 (9*). Type loc.: Onive Valley, Masola, Diego-Suarez Prov., Madagascar (holotype 9; MNHP).

mathioti Fontenille and Brunhes

1985:154 (9*). Type loc.: Onive Valley, Masola, Diego-Suarez Prov., Madagascar (holotype 9; MNHP).

pallidostriatus (Theobaid)

parascelos Theobald, 1910. Townsend 1990:118 (syntype 9: BM).

taeniorhynchoides (Christophers)

Townsend 1990:140 (change BM to LU).

tarsalis (Newstead)

biannulata Theobald, 1907. Townsend 1990:52 (lectotype & desig.; BM).

veeniae McIntosh

Segerman 1990:53 (holotype from SAIM to NIV).

vittatus (Bigot)

brumpti Neveu-Lemaire, 1905. Rodhain and Boutonnier 1985:275 (holotype 9; change NE to PIP).

Subgenus Alanstonea Mattingly

treubi (De Meijere)

Townsend 1990:143 (syntype ♀; BM).

Subgenus Albuginosus Reinert

Albuginosus Reinert, 1987:308. Type species: Stegomvia marshallii Theobald.

capensis Edwards

Reinert 1987:307 (from subgenus Aedimorphus).

gilliesi Van Someren

Reinert 1987:307 (from subgenus Aedimorphus).

haworthi Edwards

Reinert 1987:307 (from subgenus Aedimorphus).

kapretwae Edwards

Reinert 1987:307 (from subgenus Aedimorphus).

kennethi Muspratt

Reinert 1987:307 (from subgenus Aedimorphus).

marshallii (Theobald)

Reinert 1987:307 (from subgenus Aedimorphus).

ngong Van Someren

Reinert 1987:307 (from subgenus Aedimorphus).

stokesi Evans

Reinert 1987:307 (from subgenus Aedimorphus).

teesdalei Van Someren

Reinert 1987:307 (from subgenus Aedimorphus).

Subgenus Diceromyia Theobald

cordellieri Huang

1986a:636 (3*, 9*, P*, L*). Type loc.: Dezidougou, M'Bahiakro, Centre Departement, Ivory Coast (holotype & & Pe,Le; USNM).

Subgenus Edwardsaedes Belkin

pingpaensis Chang

antuensis Su, Wang and Li, 1978. Danilov 1985:380 (synonymy).

Subgenus Finlaya Theobald

albotaeniatus (Leicester)

mikiranus Edwards, 1922. Harrison et al. 1991:211 (synonymy).

aureostriatus (Doleschall)

leucopleurus Rozeboom, 1946. Reinert 1990b:51 (synonymy).

auridorsum Edwards

Townsend 1990:48 (change BM to LU).

axitiosus Kulasekera, Knight and Harbach

1990:26 (♂*, ♀, P*, L*). Type loc.: Rayoh, Tenom, Sabah, Malaysia (holotype ♂ & Pe,Le: USNM).

formosensis Yamada

Rattanarithikul and Harrison 1988:82 (lectotype 9 desig.; IID).

khasiana Barraud, 1923. Rattanarithikul and Harrison 1988:83 (lectotype ♀ desig.; BM).

gilcolladoi Sanchez-Covisa V., Rodriguez R. and Guillen L.

1985:441 (L*). Type loc.: Spain (no additional data). (Note 7).

gonguoensis Gong and Lu

1986:1 (♂*, ♀, L*). Type loc.: Gonguo, Yunnan Prov., P.R. China (holotype ♀: YIE).

greenii (Theobald)

Harrison et al. 1391:211 (from subspecies of aureostriatus).

kanaranus Barraud, 1924. Townsend 1990:90 (2 syntypes; change LU to BM).

Harrison et al. 1991:212 (transferred synonymy from var. of aureostriatus).

horotoi Taylor

Lee et al. 1982:166 (change BBM to LU).

kochi (Doenitz)

Townsend 1990:91 (syntype 9; BM).

leonis Colless

Harrison et al. 1991:199 (from subspecies of niveus).

macfarlanei (Edwards)

hegneri Causey, 1937. Harrison et al. 1991:212 (synonymy).

mallochi Taylor

Townsend 1990:100 (syntype 9: BM, may invalidate neotype of Knight and Marks 1952:558). (Note 8).

mikrokopion Knight and Harrison

1988:215 (3*, 9*, P*, L*). Type loc.: Sangkhla Buri, Kanchanaburi Prov., Thailand (holotype 3 & Pe,Le; USNM).

pecuniosus Edwards

Reinert 1988:59 (9*: from synonymy of purpureus).

reinerti Rattanarithikul and Harrison

1988:78 (&*, 9*, P*, L*). Type loc.: Doi Inthanon, Chiang Mai Prov., Thailand (holotype & Pe,Le; USNM).

Subgenus Geoskusea Edwards

lunulatus King and Hoogstraal

Marks in Lee et al. 1984:13 (from subgenus Pseudoskusea).

Subgenus Halaedes Belkin

<u>Caenocephalus</u> Taylor, 1914 (non Caenocephalus Van der Wulp, 1898). Lee et al. 1984:241 (transferred synonymy from subgenus *Pseudoskusea*).

ashworthi Edwards

Marks in Lee et al. 1984:19 (from synonymy of australis).

australis (Erichson)

concolor Taylor, 1914. Townsend 1990:62 (6 syntypes; BM).

Subgenus Kenknightia Reinert

Kenknightia Reinert, 1990b:4. Type species: Stegomvia dissimilis Leicester.

dissimilis (Leicester)

Reinert 1990b:18 (from subgenus Finlaya; lectotype & desig.; BM).

gaffigani Reineri

1990b:24 (♀*, P*, L*). Type loc.: Pensiangan, Sabah, Malaysia (holotype ♀ & Pe,Le; USNM).

harbachi Reinert

1990b:27 (♂*, ♀*, P*, L*). Type loc.: Doi Suthep, Ban Choeng, Chiang Mai Prov., Thailand (holotype ♂ & Pe,Le; USNM).

karwari (Barraud)

Reinert 1990b:32 (from variety of dissimilis to species status, from subgenus Finlaya; lectotype 2 desig.; BM).

lerozeboomi Reinert

1990b:33 (&*, 9*, P*, L*). Type loc.: Calso. Dalton Pass. Nueva Viscaya. Philippines (holotype & & Pe.Le: USNM).

leucomeres (Giles)

Reinert 1990b:37 (from subgenus Finlaya).

litwakae Reinert

1990b:39 (8*, 9*, P*, L*). Type loc.: Caburan, Davao, Mindanao, Philippines (holotype 8 & Pe,Le; USNM).

luzonenesis Rozeboom

Reinert 1990b:43 (from subgenus Finlaya).

paradissimilis Rozeboom

Reinert 1990b:47 (from subgenus Finlaya).

pecori Reinert

1990b:52 (&*, P*, P*, L*). Type loc.: Gunong Jasar. Cameron Highlands. Penang, Malaysia (holotype 9 & Pe.Le; USNM).

wilkersoni Reinert

1990b:56 (3*, 9*, P*, L*). Type loc.: Ulu Gombak, Selangor, Malaysia (holotype 3 & Pe,Le; USNM).

Subgenus Levua Stone and Bohart

geoskusea Amos

Lee et al. 1984:44 (unjustified synonymy with suvae). (Note 9).

Subgenus Neomelaniconion Newstead

luridus McIntosh

Segerman 1990:53 (holotype; change SAIM to NIV).

mcintoshi Huang

1987:109 (3*, 9*). Type loc.: Onderstepoort, Transvaal, South Africa (holotype 3: USNM).

unidentatus McIntosh

Segerman 1990:53 (holotype; from SAIM to NIV).

Subgenus Ochlerotatus Lynch Arribalzaga

albineus Seguy

Townsend 1990:39 (2 syntypes; BM).

camptorhynchus (Thomson)

annulipes Taylor, 1914. Townsend 1990:42 (?3 syntypes; BM).

detritus (Haliday)

maculosa Theobald, 1905. Townsend 1990:99 (syntype ♀; BM).

eidsvoldensis Mackerras

Lee et al. 1984:145 (from subspecies of theobaldi).

excrucians (Walker)

abfitchii Felt, 1904. McCabe and Johnson 1980:27 (lectotype L desig. by D.M. Wood; NY).

flavescens (Mueller)

Townsend 1990:73 (syntype ♀; change O to BM).

flavescens Theobald, 1901. Townsend 1990:73 (syntype 9; change O to BM).

imperfectus Dobrotworsky

Lee et al. 1984:154 (holotype & Pe,Le; change USNM (error in Knight and Stone 1977:134) to NMM).

implicatus Vockeroth

Ward 1987:95 (from synonymy of leucomelas).

intermedius Danilov and Gornostaeva

1987:612 (3*, 9*, L*). Type loc.: Abakan, Khakas Autonomous Prov., Krasnoyarsk Territory, USSR (holotype 3 & Le; IMP).

juppi McIntosh

Knight and Stone 1977:135 (type in SAIM). (Note 10: change SAIM to NIV).

lasaensis Meng

ssp. gvirongensis Ma

1982:162 (♂*, ♀). Type loc.: Gyirong, Xizang Autonomous Region. P.R. China (holotype ♂; IZ).

longifilamentus Su and Zhang

1988:11 (♂*, ♀). Type loc.: Yumin. Xinjiang Uygur Autonomous Region, P.R. China (holotype ♂; AMC).

normanensis (Taylor)

Townsend 1990:112 (?2 syntypes; BM).

pulcritarsis (Rondoni)

Snow 1986:361 (corrected specific epithet from <u>pulchritarsis</u>, Article 32b, ICZN 1985).

pullatus (Coquillett)

seguyi Apfelbeck, 1929. Townsend 1990:132 (4 syntypes; change LU to BM).

quasirusticus Torres Canamares

Townsend 1990:126 (3 syntypes; change ?BM to BM).

rhvacophilus Da Costa Lima

Sallum et al. 1988:67 (from synonymy with scapularis; lectotype 2 desig.; IOC).

riparioides Su and Zhang

1987:450 (3*, 9, L*). Type loc.: Jingpeng, Keshiketeng Banner, Inner Mongolia Autonomous Region, P.R. China (holotype 9; BMC).

sagax (Skuse)

wilsoni Taylor, 1919. Townsend 1990:151 (add 10 syntypes; BM).

sedaensis Lei

1989:6 (δ , \mathfrak{P} , L). Type loc.: Seda and Songpan counties, Sichuan Prov., P.R. China (holotype \mathfrak{P} ; SIP).

simanini Gutsevich

Ward 1987:95 (from synonymy of niphadopsis).

sticticus (Meigen)

paradianteus Apfelbeck, 1929. Townsend 1990:118 (syntype & change LU to BM).

stramineus Dubitzky

Ward 1987:95 (from synonymy of albineus).

tahoensis Dyar

Brust and Munstermann 1992:2 (from synonymy with communis).

Subgenus Rhinoskusea Edwards

portonovoensis Tewari and Hiriyan

1992:123 (&*, 9*, P*, L*). Type loc.: Pichavaram mangrove swamp, South Arcot District. India (holotype & & Pe,Le; USNM).

Subgenus Rusticoidus Shevchenko and Prudkina

krymmontanus Alekseev

1989:173 (&*, Q*, L*). Type loc.: southern slope of Crimean Mountains, Crimea, USSR: (holotype adult; A). (Note 11).

refiki Medschid

Townsend 1990:128 (3 syntypes: change LU to BM).

Subgenus Scutomyia Theobald

Scutomyia Theobald, 1904. Reinert 1985:121 (from synonymy with Stegomyia). Type species: Scutomyia albolineata Theobald.

albolineatus (Theobald)

Reinert 1985:121 (from subgenus Stegomvia).

arboricola Knight and Rozeboom

Reinert 1985:121 (from subgenus Stegomyia).

bambusicola Knight and Rozeboom

Reinert 1985:121 (from subgenus Stegomvia).

boharti Knight and Rozeboom

Reinert 1985:121 (from subgenus Stegomyia).

hoogstraali Knight and Rozeboom

Reinert 1985:121 (from subgenus Stegomvia).

impatibilis (Walker)

Reinert 1985:121 (from subgenus Stegomvia).

laffooni Knight and Rozeboom

Reinert 1985:121 (from subgenus Stegomyia).

platylepidus Knight and Hull

Reinert 1985:121 (from subgenus Stegomyia).

pseudalbolineatus Brug

Reinert 1985:121 (from subgenus Stegomvia).

Subgenus Sinoaedes Gong and Lu

Sinoaedes Gong and Lu, 1991:55. Type species: Aedes occidentayunnanus Gong and Lu. occidentayunnanus Gong and Lu

1991:55 (♂*, ♀*, L*). Type loc.: Longchuan County, Yunnan Prov., P.R. China (holotype ♂; YIE).

Subgenus Skusea Theobald

lambrechti Van Someren

Townsend 1990:92 (change BM to NE).

Subgenus Stegomyia Theobald

aegypti (Linnaeus)

lamberti Ventrillon, 1904. Rodhain and Boutonnier 1985:275 (from synonymy of albopictus, 2 syntypes; PIP). Townsend 1990:92 (8 syntypes; change LU to BM).

queenslandensis Theobald, 1901. Lee et al. 1987:14 (synonymy).

africanus (Theobald)

Huang 1990:16 (lectotype & desig.; BM).

apicoargenteus (Theobald)

Townsend 1990:44 (lectotype ♀ desig.; BM).

ssp. denderensis Wolfs, 1949. Townsend 1990:66 (add 6 syntypes; BM).

calceatus Edwards

Edwards 1924:197 [Townsend 1990:56 (erroneously attributed to Edwards (1941:142) by Knight and Stone (1977:158)]. (Note 12).

chaussieri Edwards

Rodhain and Boutonnier 1985:275 (syntype 9; PIP).

corneti Huang

1986b:765 (&*, \Partial*, P*, L*). Type loc.: Tiwai Island (Moa River), Potoro, Southern Prov., Sierra Leone (holotype & & Pe,Le; USNM).

edwardsi (Barraud)

Townsend 1990:70 (9 syntypes; BM).

galloisiodes Liu and Lu

1984:76 (♂*, ♀, L*). Type loc.: Kumming, Yunnan Prov., P.R. China (holotype ♀; KIM). *josiahae* Huang

1988a:155 (♂*, ♀*). Type loc.: 60-70 km s Ifakara, Tanzania (holotype ♂: VBDK).

katherinensis Woodhill

Lee et al. 1987:124 (from subspecies of scutellaris).

luteocephalus (Newstead)

Huang 1990:27 (lectotype ♀ desig.; BM).

maxgermaini Huang

1990:31 (9*). Type loc.: Mamfe, West Cameroon, Cameroon (holotype 9; USNM).

mickevichae Huang

1988b:6 (♀*). Type loc.: Kaunro, Kenya (holotype ♀: BM).

saimedres Huang

1988b:10 (♀*). Type loc.: Okokara, Namibia (holotype ♀; BM).

soleatus Edwards

1924:198 [Townsend 1990:135 (erroneously attributed to Edwards (1941:142) by Knight and Stone (1977:165)]. (Note 12).

strelitziae Muspratt

Segerman 1990:54 (holotype; change ?SAIM to SAIM).

tabu Ramalingam and Belkin

Lee et al. 1987:229 (from subspecies of tongae).

Subgenus Verrallina Theobald

Reinert 1984:3 (redescription).

azureosquamatus Bonne-Wepster

Lee et al. 1987:259 (holotype 9; change LM to ITH).

cunninghami Taylor

Reinert 1974:17 (from subgenus Aedes).

lugubris Barraud

Reinert 1984:39 (lectotype 2 desig.: BM).

pseudomediofasciatus (Theobald)

Reinert 1984:45 (lectotype ♂ desig.; BM).

spermathecus Wijesundara

Reinert 1974:17 (from subgenus Aedes). Townsend 1990:136 (syntype ♀: change MRI to BM).

uniformis (Theobald)

Reinert 1974:17 (from subgenus Aedes).

varietas (Leicester)

Townsend 1990:147 (erroneous lectotype desig.). (Note 13).

Subgenus uncertain

daliensis (Taylor)

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Lee et al. 1984:46 (?near subgenus Levua from subgenus Geoskusea).

Genus Armigeres Theobald Subgenus Armigeres Theobald

breinli (Taylor)

Lee et al. 1988d:6 (lectotype 9; change US to ANIC).

denbesteni Brug

spathulatus Brug, 1939. Townsend 1990:136 (?holotype & BM).

durhami Edwards

javanensis Brug, 1939. Ramalingam 1987:64 (from variety of kuchingensis to synonymy of durhami).

kesseli Ramalingam

1987:56 (3*, 9*, P*, L*). Type loc.: Ulu Gombak, Selangor, Malaysia (holotype 3 & Pe,Le; USNM).

malavi (Theobald)

<u>fusca</u> Theobald, 1903. Townsend 1990:77 (unjustified removal from synonymy). (Note 14). *milnensis* Lee

ventralis Walker, 1865 (Culex), (non Walker, 1860). Marks in Lee et al. 1988d:19 (from nomen dubium of genus Culex to synonymy; syntype 9; change NE to NMM).

obturbans (Walker)

Lee et al. 1988d (holotype 9; change NE to NMM, from nomen dubium).

sexicoxitus Luh and Li

1981:188 (♂*, ♀). Type loc.: Guangxi Autonomous Region, P.R. China (holotype ♀: AMC).

Subgenus Leicesteria Theobald

magnus (Theobald)

Townsend 1990:100 (syntype &; BM).

Genus Eretmapodites Theobald

mortiauxi Cunha Ramos and Ribeiro

1990:139 (8*). Type loc.: Dundo (Carisso Park), Angola (holotype 8; IHMT).

silvestris Ingram and de Meillon

Townsend 1990:133 (lectotype ♀ desig.; BM).

Genus Haemagogus Williston

Subgenus Haemagogus Williston

anastasionis Dyar

dominguezi Duret, 1971. Harbach et al. 1991:193 (holotype & change A to USNM).

capricornii Lutz

Xavier and da Silva Mattos 1989:50 (neotype ♀ & Pe,Le: CPRR).

lucifer (Howard, Dyar and Knab)

Townsend 1990:96 [invalid syntype 9; see lectotype & desig., Dyar 1921:107 (Article 73b(ii) ICZN 1985].

Genus Heizmannia Ludlow

Subgenus Heizmannia Ludlow

greenii (Theobald)

Amerasinghe 1989:86 (lectotype ♂ desig.; BM).

heterospina Gong and Lu

Lu and Gong 1986:183 (3*). Type loc.: Xianguan, Yunnan Prov., P.R. China (holotype 5; YIE).

lii Wu

Townsend 1990:44 (add 6 syntypes; BM).

menglianensis Lu and Gong

1986:184 (ô*, ♀*, L). Type loc.: Menglian, Yunnan Prov., P.R. China (holotype ♀; YIE).

Genus Psorophora Robineau-Desvoidy

Subgenus Janthinosoma Lynch Arribalzaga

lutzii (Theobald)

chaquensis Paterson and Shannon, 1927. Knight and Stone 1977:190 (holotype 9; change NE to USNM). (Note 15).

pilosus Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

pseudoalbipes Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

varipes (Coquillett)

ferraroi Duret, 1971. Harbach et al. 1991:193 (holotype & change A to USNM).

Genus Udaya Thurman

subsimilis (Barraud)

Reinert 1990a:207 (from genus Aedes, subgenus Finlaya).

Tribe Culicini

Genus Culex Linnaeus

Subgenus Afroculex Danilov

Afroculex Danilov, 1989:790. Type species: <u>Pseudohowardina</u> lineata Theobald. lineata (Theobald)

Danilov 1989:790 (from subgenus Maillotia).

pulchrithorax Edwards, 1914. Danilov 1989:790 (from subgenus Maillotia; synonymy).

Subgenus Allimanta Casal and Garcia

tramazayguesi Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

Subgenus Anoedioporpa Dyar

helemensis Duret and Damasceno

Harbach et al. 1991:192 (holotype & change A to USNM).

damascenoi Duret

Harbach et al. 1991:193 (holotype & change A to USNM).

quasioriginator Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

Subgenus Culex Linnaeus

annulioris consimilis Newstead

pseudoannulioris Theobald, 1909. Townsend 1990:123 (lectotype 9 desig.; BM).

annulirostris Skuse

Lee et al. 1989a:36 (holotype 9; change MM to ANIC).

somerseti Taylor, 1912. Lee et al. 1989a:36 (holotype 9; change US to ANIC).

consimilis Taylor, 1913. Lee et al. 1989a:36 (holotype 9; change US to ANIC).

simplex Taylor, 1914. Lee et al. 1989a:36 (holotype 9; change US to ANIC).

antennatus (Becker)

laurenti Newstead, 1907. Harbach 1988:48 (lectotype & desig.; BM).

aquarius Strickman

1990:150 (3*, 9*, P*, L*). Type loc.: San Isidro de Coronada, San Jose Prov., Costa Rica (holotype 3 & Pe,Le; USNM).

argenteopunctatus (Ventrillon)

Townsend 1990:45 (add 2 syntypes; BM).

bitaeniorhynchus Giles

Harbach 1988:105 (neotype & desig.; BM).

ager Giles, 1901. Townsend 1990:38 (neotype & desig.; BM—same specimen as neotype of bitaeniorhynchus).

ethiopicus Edwards, 1912. Harbach 1988:101 (synonymy).

brumpti Gaillard

Townsend 1990:55 (lectotype ♀ desig.; change LU to BM).

chitae Duret

Harbach et al. 1991:193 (holotype &; change A to USNM).

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crinicauda Edwards
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parvus Taylor, 1912. Townsend 1990:118 (? add & syntype; BM).

cuvanus Duret

Harbach et al. 1991:193 (holotype &; change A to USNM).

decens Theobald

Harbach 1988:44 (lectotype & desig.; BM).

masculus Theobald, 1901. Harbach 1988:44 (lectotype & desig.; BM).

minutus Theobald, 1905. Harbach 1988:44 (lectotype & desig.; BM).

nigrocostalis Theobald, 1909. Harbach 1988:44 (lectotype & desig.; BM).

lividocostalis Graham, 1910. Harbach 1988:45 (lectotype & desig.; BM).

duttoni Theobald

Harbach 1988:82 (lectotype ♀ desig.; BM).

dissimilis Theobald, 1901. Harbach 1988:82 (lectotype & desig.; BM).

hirsutipalpis Theobald, 1901. Harbach 1988:82 (lectotype & desig.; BM).

bifoliata Theobald, 1905. Harbach 1988:82 (lectotype & desig.; BM).

albovirgatus Graham, 1910. Harbach 1988:82 (lectotype & desig.; BM).

edwardsi Barraud

Lee et al. 1989a:117 (change BM to LU).

fuscocephala Theobald

fuscitarsis Barraud, 1924. Bram 1967:188 (lectotype & desig.; BM).

grahamii Theobald

var. farakoensis Hamon, 1955. Townsend 1990:72 (add 2 & syntypes; BM).

guizhouensis Chen and Zhao

1985:265 (3*, 9*, P*, L*). Type loc.: Guiyang, Guizhou Prov., P.R. China (syntypes 20 3, 25 9, 17 Pe, 50 Le; GMC).

interfor Dyar

Harbach et al. 1986:141 (from synonymy of bidens).

invidiosus Theobald

chloroventer Theobald, 1909. Townsend 1990:59 (add 2 syntypes; change ?BM to BM).

jacksoni Edwards

fuscifurcatus Edwards, 1934. Townsend 1990:77 (holotype & BM—invalidates lectotype desig. by Sirivanakarn 1976:151). (Note 16).

lactator Dyar and Knab

Strickman and Pratt 1989:562 (from synonymy of corniger).

litwakae Harbach

1985b:255 (3*, 9, P*, L*). Type loc.: Mazeras, Mambasa District, Coast Region, Kenya (holotype 3 & Pe,Le; USNM).

mimulus Edwards

Sirivanakarn 1976:159 (lectotype & desig.; BM). Townsend 1990:105 (invalidates lectotype desig. by Sirivanakarn 1976). (Note 17).

mossmani Taylor, 1915. Lee et al. 1989a:138 (2 syntypes; change US to ANIC).

palpalis Taylor

Marks in Lee et al. 1989a:151 (holotype 2; change US to ANIC, from synonymy of annulirostris).

paramaxi Duret

Harbach et al. 1991:194 (holotype &; change A to USNM).

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pipiens Linnaeus
     Harbach et al. 1985:9 (neotype & Pe.Le desig.; USNM).
  bifurcatus Linnaeus, 1758. Harbach et al. 1985:7 (lectotype & desig.).
  molestus Forskal 1775. Harbach et al. 1984:573 (synonymy; neotype & & Pe,Le desig.;
    USNM). Lee et al. 1989a:143 (improper desig. as species).
  domesticus Germar, 1817. Harbach 1988:229 (from synonymy of molestus).
  agilis Bigot, 1889. Townsend 1990:38 (add 2 syntype; BM).
  haematophagus Ficalbi, 1893. Harbach 1988:230 (from synonymy of molestus).
  quasimodestus Theobald, 1905. Harbach 1988:230 (from synonymy of molestus).
  autogenicus Roubaud, 1935. Harbach 1988:230 (from synonymy of molestus).
  bebericus Roubaud, 1935. Harbach 1988:230 (from synonymy of molestus).
  sternopallidus Roubaud, 1945. Harbach 1988:231 (from synonymy of molestus).
  sternopunctatus Roubaud, 1945. Harbach 1988:231 (from synonymy of molestus).
  calloti Rioux and Pech, 1959. Harbach 1988:230 (synonymy).
  erectus Iglisch, 1977. Harbach 1988:231 (svnonvmv).
  torridus Iglisch, 1977. Harbach 1988:231 (synonymy).
poicilipes (Theobald)
  quasigelidus Theobald, 1903. Harbach 1988:92 (lectotype 9 desig.; BM).
  madagascariensis Ventrillon, 1905. Harbach 1988:92 (lectotype ♀ desig.; MNHP).
  auritaenia Enderlein, 1920. Harbach 1988:92 (lectotype 2 desig.; BM).
pruina Theobald
  ssp. eschirasi Galliard, 1931. Townsend 1990:71 (12 syntypes; change LU to BM).
pseudostigmatosoma Strickman
    1990:144 (3*, 9*, P*, L*). Type loc.: Llano Guagololo, La Paz Department, Honduras
    (holotype & & Pe,Le; USNM).
quinquefasciatus Say
  macleayi Skuse, 1889. Lee et al. 1989a:166 (holotype 9: change MM to ANIC).
  cartroni Ventrillon, 1905. Harbach 1988:31 (lectotype 2 desig.; MNHP).
riojanus Duret
    Harbach et al. 1991:194 (holotype &; change A to USNM).
simpsoni Theobald
    Harbach 1988:75 (lectotype & desig.; BM).
  richteri Ingram and de Meillon, 1927. Harbach 1988:75 (lectotype & desig.; BM).
  mauritanicus Callot, 1940. Harbach 1988:75 (synonymy).
sinaiticus Kirkpatrick
    Townsend 1990:135 (add 9 syntypes; BM).
sitiens Wiedemann
  salus Theobald, 1908. Harbach 1988:87 (lectotype & desig.; BM).
  bancrofti Theobald, 1901. Marks in Lee et al. 1989a:225 (from synonymy of annulirostris).
  saibaii Taylor, 1912. Lee et al. 1989a:225 (holotype 9; change US to ANIC).
  paludis Taylor, 1913. Lee et al. 1989a:225 (holotype 9; change US to ANIC).
  annulata Taylor, 1914. Lee et al. 1989a:225 (2 syntypes; change US to ANIC).
  milni Taylor, 1914. Lee et al. 1989a:225 (2 syntypes; change US to ANIC).
spinosus Lutz
    Lourenco de Oliveira and Townsend 1989:431 (neotype & & Pe, Le desig.; FSP).
squamosus (Taylor)
    Lee et al. 1989a:245 (holotype ♀; change US to ANIC).
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annulirostris Taylor, 1914 (Leucomyia). Lee et al. 1989a:245 (2 syntypes; change US to ANIC).

stigmatosoma Dyar

Strickman 1988:490 (from synonymy of <u>peus</u>); Eldridge and Harbach 1989:247 (conservation of name *stigmatosoma*); International Commission on Zoological Nomenclature 1991:179 (validation of name *stigmatosoma*).

eumimetes Dyar and Knab, 1908. Strickman 1988:490 (synonymy).

telesilla de Meillon and Lavoipierre

Townsend 1990:141 (2 syntypes; add BM). Segerman 1990:54 (invalid holotype 8). (Note 18).

theileri Theobald

pettigrewii Theobald, 1910. Townsend 1990:120 (holotype 9: change ?BM to BM). onderstepoortensis Theobald, 1911. Townsend 1990:115 (6 syntypes: change ?BM to BM). alpha Seguy, 1924. Harbach 1988:61 (synonymy, lectotype L illustration desig.; specimen NE?).

thriambus Dyar

Strickman 1988:490 (from synonymy of <u>peus</u>); Eldridge and Harbach 1989:247 (conservation of name *thriambus*); International Commission on Zoological Nomenclature 1991:179 (validation of name *thriambus*).

affinis Adams, 1903. Strickman 1988:490 (synonymy).

univittatus Theobald

montforti Ventrillon, 1905. Townsend 1990:106 (lectotype & change MNHP to BM).

verutus Harbach

1987:216 (3*, 9, P*, L*). Type loc.: Kasawe Forest Reserve, Moyamba District, Southern Prov., Sierra Leone (holotype 3 & Pe,Le; USNM).

vicinus (Taylor)

Lee et al. 1989a:265 (2 syntypes; change US to ANIC).

<u>annulata</u> Taylor, 1914 (<u>Leucomyia</u>). Lee et al. 1989a:265 (2 syntypes; change US to ANIC). whitmorei (Giles)

Townsend 1990:151 (lectotype ♀ desig.; BM).

voioae Strickman

1990:148 (δ^* , Ω^* , Ω^* , Ω^*). Type loc.: La Joya, Cortes Department, Honduras (holotype δ & Pe,Le; USNM).

Subgenus Culiciomyia Blanchard

Thaiomyia Bram, 1966. Harrison 1987:111 (synonymy).

azurini Toma, Miyagi and Cabrera

1984:172 (3*, 9*, P*, L*). Type loc.: White Beach, Puerto Princesa, Palawan Is., Philippines (holotype 3 & Pe,Le; NMST).

dispectus Bram

Harrison 1987:113 (from subgenus Thaiomyia).

hainanensis Chen

Harrison 1987:113 (from subgenus Thaiomyia).

nebulosus Theobald

Townsend 1990:108 (change BM to LU).

nigrochaetae Theobald, 1901. Townsend 1990:111 [add 2 syntypes; change ?NE to BM.

Knight and Stone (1977:292) erroneously placed syntype & of <u>nigrochaetae</u> as synonym of *Coquillettidia metallica* (Theobald)].

papuensis (Taylor)

Lee et al. 1989b:21 (holotype 9; change US to ANIC).

rajah Tsukamoto

1989:216 (&, \Paper P*, L*). Type loc.: Mt. Kinabalu, Sabah, Malaysia (holotype &; NMST). spathifurca (Edwards)

stylifurcatus Carter and Wijesundara. 1948. Townsend 1990:137 (lectotype & desig., BM). spiculostylus Chen

1989:86 (♂*, ♀*, L*). Type loc.: Mengla Xian, Xishuangbanna, Yunnan Prov., P.R. China (holotype ♂: GMC).

Subgenus Eumelanomyia Theobald

castor de Meillon and Lavoipierre

Segerman 1990:54 (holotype & change IERT to SAIM).

foliatus Brug

Townsend 1990:74 (lectotype & desig.; BM).

hackeri Edwards

Townsend 1990:81 (holotype & BM—invalidates lectotype desig. by Sirivanakarn 1972:52). (Note 19).

hayashii Yamada

Townsend 1990:82 (12 syntypes; change IID to BM).

oresbius Harbach and Rattanarithikul

1988:69 (3*, 9, P*, L*). Type loc.: Doi Inthanon, Chom Thong, Chiang Mai Prov., Thailand (holotype 3 & Pe; USNM).

richardgarciai Jeffery, Oothuman and Rudnick

1987:140 (&). Type loc.: Pasoh Forest Reserve, Negeri Sembilan, Malaysia (holotype &; USNM).

rima Theobald

koumbai Gaillard, 1931. Townsend 1990:91 (3 syntypes; change LU to BM).

rubinotus Theobald

Townsend 1990:129 (lectotype ♀ desig.; BM).

wansoni Wolfs

Townsend 1990:149 (add 2 syntypes; BM).

Subgenus Kitzmilleria Danilov

Kitzmilleria Danilov, 1989:792. Type species: Culex moucheti Evans.

moucheti Evans

Danilov 1989:792 (from subgenus Culex).

Subgenus Lasiosiphon Kirkpatrick

adairi Kirkpatrick

pluvialis Kirkpatrick, 1925. Harbach et al. 1989:320 (syntypes; change LU to DAC and ESE); Townsend 1990:122 (add 8 syntypes; BM).

Subgenus Lophoceraomyia Theobald

bengalensis Barraud

Townsend 1990:51 (lectotype & desig.; change LU to BM).

cubiculi Marks

Marks in Lee et al. 1989b:94 (nomen novum for Lophoceratomyia annulata Taylor, 1916 (non Schrank, 1776), from synonymy of fraudatrix: 4 syntypes; change US to ANIC). Townsend 1990:43 (syntype & change LU to BM).

fraudatrix (Theobald)

Lee et al. 1989b:105 [invalid lectotype desig. by Sirivanakarn (1968:156)]. (Note 20).

gagnei Evenhuis

Evenhuis and Gon 1989:209 (nomen novum for ornatus Theobald, 1905, preoccupied by ornatus Meigen, 1818).

hewitti (Edwards)

Townsend 1990:82 (holotype & BM—invalidates lectotype desig. of Sirivanakarn 1977:132). (Note 21).

insequens Marks

Marks in Lee et al. 1989b:120 (nomen novum for cairnsensis Taylor, 1919:837 (non cairnsensis Taylor, 1919:829), from synonymy of fraudatrix (2 syntypes; change US to ANIC).

pseudorubithoracis Sirivanakarn

1968:178 (holotype & change BBM to LU). (Note 22).

quadripalpis (Edwards)

sylvestris Leicester, 1908. Townsend 1990:139 (lectotype & change NE to BM).

sangenluoensis Wang

1984:217 (3*, 9*, L*). Type loc.: Wanning, Hainan, Sangenluo Commune. P.R. China (holotype 3; TMMC).

Subgenus Lutzia Theobald

tigripes De Grandpre and De Charmoy

Townsend 1990:142 (add 2 syntypes; BM).

Subgenus Maillotia Theobald

deserticola Kirkpatrick

Harbach 1985a:84 (from subgenus *Neoculex*); Harbach et al. 1989:320 (syntypes; change LU to DAC and ESE); Townsend 1990:67 (add 6 syntypes; BM).

hortensis Ficalbi

Townsend 1990:84 (12 syntypes; change LU to BM).

pulchrithorax Edwards

lineata Theobald, 1912. Townsend 1990:94 (add 3 syntypes; BM).

salisburiensis Theobald

bostocki Theobald, 1905. Townsend 1990:53 (holotype 9; change NE to BM).

Subgenus Melanoconion Theobald

aliciae Duret

Harbach et al. 1991:192 (holotype &; change A to USNM).

alvarezi Sutil Oramas, Pulido F. and Amarista M.

1987:83 (3*). Type loc.: Chircola, Apure State. Venezuela (holotype 3: DERM).

anoplicitus Forattini and Sallum

1989a:1 (3*). Type loc.: Vilarinho, Itapitangui, Sao Paulo State, Brazil; (holotype 3, FSP).

bahiensis Duret

Harbach et al. 1991:192 (holotype ♂; change A to USNM).

bejaranoi Duret

Harbach et al. 1991:192 (holotype & change A to USNM).

cedecei Stone and Hair

Cupp in Weaver et al. 1986:619 (from synonymy of taeniopus).

contei Duret

Harbach et al. 1991:193 (holotype & change A to USNM).

cristovaoi Duret

Harbach et al. 1991:193 (holotype & change A to USNM).

delpontei Duret

Harbach et al. 1991:193 (holotype & change A to USNM).

ernanii Duret

Harbach et al. 1991:193 (holotype & change A to USNM).

faurani Duret

Harbach et al. 1991:193 (holotype & change A to USNM).

ferreri Duret

Harbach et al. 1991:193 (holotype & change A to USNM).

flochi Duret

Harbach et al. 1991:193 (holotype δ; change A to USNM).

galvaoi Duret

Harbach et al. 1991:193 (holotype & change A to USNM).

garcesi Duret

Harbach et al. 1991:193 (holotype & change A to USNM).

glyptosalpinx Harbach. Peyton and Harrison

1984:186 (&*, 9*, P*, L*). Type loc.: Rincon Del Tigre, Sandoval Prov., Santa Cruz Dept., Bolivia (holotype & & Pe.Le; USNM).

guedesi Mattos and Xavier

1991:193 (3*). Type loc.: Lagoa dos Mares, Lagoa Santa, Minas Gerais State, Brazil (holotype 3; FSP).

herrerai Sutil Oramas, Pulido F. and Amarista M.

1987:81 (3*). Type loc.: Jabilla, Quesedas del Medio, Apure State, Venezuela (holotype &; DERM).

isabelae Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

johnnyi Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

milwardi Xavier and da Silva Mattos

Forattini et al. 1988:535 (holotype & change A to FSP).

misionensis Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

nicaroensis Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

ocellatus Theobald

Townsend 1990:114 (change BM to LU).

orfilai Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

palaciosi Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

perevrai Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

phlabistus Dvar

kerri Duret, 1968. Harbach et al. 1991:194 (holotype & change A to USNM).

rabelloi Forattini and Sallum

1987a:130 (&*, 9*, P*, L*). Type loc.: Pariquera-Mirim, Pariquera-Acu County, Sao Paulo State, Brazil (holotype & & Pe.Le; FSP).

rachoui Duret

Harbach et al. 1991:194 (holotype of change A to USNM).

ribeirensis Forattini and Sallum

1985:171 (3*, 9*, P*, L*). Type loc.: Experimental Station of Ribeira Valley, Sao Paulo State, Brazil (holotype 9 & Pe,Le; FSP).

silvai Duret

Harbach et al. 1991:194 (holotype & change A to USNM).

spathulatus Forattini and Sallum

1987b:167 (&). Type loc.: Santa Helena Farm. Sao Jao de Boa Vista County, Sao Paulo State, Brazil (holotype &; FSP).

theobaldi (Lutz)

Townsend 1990:142 (change BM, ?IOC to BM).

chrysonotum Dyar and Knab, 1908. Forattini and Sallum 1989b:201 (synonymy).

chrysothorax Newstead and Thomas, 1910. Townsend 1990:60 (change BM. ?IOC & BM).

Subgenus Microculex Theobald

davisi Kumm

Townsend 1990:65 (26 syntypes; change LU to BM).

siphanulatus Lourenco de Oliviera and da Silva

1987:101 (♂*, ♀*, P*, L*). Type loc.: Granjas Calabria, Jacarepagua, Rio de Janeiro, Brazil (holotype ♂ & Pe,Le; IOC).

Subgenus Neoculex Dyar

douglasi Dobrotworsky

Lee et al. 1988b:24 (holotype & change CSIR to NMM).

fergusoni (Taylor)

Lee et al. 1988b:26 (type 9; change US to ANIC).

Subgenus Tinolestes Coquillett

breviculus Senevet and Abonnenc

mojuensis Duret and Damasceno, 1955. Harbach et al. 1991:194 (holotype & change A to USNM).

Subgenus uncertain

cairnsensis (Taylor)

Lee et al. 1988b:41 (holotype 9; change US to ANIC).

inornata (Theobald)

Townsend 1990:86 (improper transfer to subgenus *Melanoconion* from "subgenus uncertain" of Knight and Stone 1977:272).

Nomen Dubium

novaeguineae Evenhuis

Evenhuis and Gon 1989:210 (nomen novum for ventralis Walker, 1865; preoccupied by ventralis Walker, 1860).

Tribe Culisetini

Genus Culiseta Felt

Subgenus Austrotheobaldia Dobrotworsky

littleri (Tavlor)

1.0

Lee et al. 1988b:47 (holotype 9: change US to ANIC).

Subgenus Culicella Felt

fumipennis (Stephens)

Townsend 1990:76 (lectotype ♀ desig.; BM).

setivalva (Monchadskii, 1936). Danilov 1984:313 (synonymy).

weindorferi (Edwards)

Lee et al. 1988b:66 (holotype & change LU to ANIC).

Subgenus Culiseta Felt

atlantica (Edwards)

Townsend 1990:47 (lectotype ♀ desig.; BM).

hergrothi (Edwards)

Townsend 1990:51 (syntype 9: change BM, SM & HM? to BM).

Tribe Ficalbiini

Genus Ficalbia Theobald

minima (Theobald)

Townsend 1990:105 (lectotype & desig.; BM).

Genus *Mimomyia* Theobald Subgenus *Etorleptiomyia* Theobald

elegans (Taylor)

Lee et al. 1988c:12 [holotype 9: change US to ANIC; invalid neotype desig, by Taylor (1929:271)].

martinei (Doucet)

Service 1990:106 (from subgenus Ingramia).

Subgenus Ingramia Edwards

Ward 1984:246 (erroneous citation as genus).

brygooi Griebine

1986:119 (3*, P*, L*). Type loc.: Manakara, Fianarantsoa, Madagascar (holotype L: SSC). collessi Griebine

1986:124 (♂*, ♀*, P*, L*). Type loc.: Manakara, East Coast, Madagascar (holotype ♂, Pe; SSC).

levicastilloi Grjebine

1986:145 (P*, L*). Type loc.: Manakara, Fianarantsoa, Madagascar (holotype L; SSC).

longicornis Griebine

1986:149 (3*, 2*, P*, L*). Type loc.: Ambodiriana (forest), Tamatave Prov., Madagascar (holotype 3 & Pe,Le; SSC).

marksae Griebine

1986:154 (♂*, ♀*, P*, L*). Type loc.: Manakara, Fianarantsoa Prov., Madagascar (holotype L: SSC).

mattinglyi Griebine

1986:158 (&, P*, L*). Type loc.: Analamazaotra (forest), Perinet, Tamatave Prov., Madagascar (holotype L; SSC).

milloti Grjebine

1986:163 (3*, 9*, P*, L*). Type loc.: Manombo, km. 745, route Tananarive-Tulear, Madagascar (holotype & & Pe,Le; SSC).

ramalai Griebine

1986:169 (♀*, P*, L*). Type loc.: La Mandraka, Tananarive Prov., Madagascar (holotype ♀ & Pe,Le; SSC).

stellata Griebine

1986:192 (3*, 9, P*, L*). Type loc.: Perinet (forest), Moramanga region, Madagascar (holotype L; SSC).

vansomerenae Griebine

1986:199 (L*). Type loc.: Lokobe reserve, Nosy Be Is., Madagascar (holotype L; SSC).

Subgenus Mimomyia Theobald

chamberlaini clavipalpus (Theobald)

Townsend 1990:61 (add syntype & BM, unjustified elevation to species). (Note 14). chamberlaini metallica (Leicester)

Lee et al. 1988c:23 (from variety to subspecies).

Tribe Hodgesiini

Genus Hodgesia Theobald

cairnsensis Taylor

Lee et al. 1988b:90 (holotype 9; change US to ANIC).

quasisanguinae Leicester

triangulatus Taylor, 1914. Lee et al. 1988b:94 (holotype 9; change US to ANIC).

sanguinae Theobald

Townsend 1990:130 (lectotype ♀ desig.; BM).

spoliata Edwards

Lee et al. 1988b:100 (add syntype 9; ANIC).

Tribe Mansoniini Genus *Coquillettidia* Dyar Subgenus *Coquillettidia* Dyar

fuscopteron (Theobald)

Marks in Lee et al. 1988d:80 (from synonymy of crassipes).

giblini (Taylor)

Lee et al. 1988d:92 (4 syntypes; change US to ANIC).

linealis (Skuse)

Lee et al. 1988d:97 (holotype 9: change MM to ANIC).

memorans (Bonne-Wepster)

Townsend 1990:103 (holotype 9: change GLB to BM).

nigrochracea (Bonne-Wepster)

Lee et al. 1988d:107 (6 syntypes; change GLB to LM and ITH).

nigrosignata (Edwards)

Townsend 1990:111 (syntype 9; change LU to BM).

Genus *Mansonia* Blanchard Subgenus *Mansonioides* Theobald

papuensis (Taylor)

Lee et al. 1988b:133 (invalid holotype \mathfrak{P} ; change US to ANIC); Townsend 1990:118 (syntype \mathfrak{P} ; BM). (Note 23).

septempunctata Theobald

bonnewepsterae van den Assem. 1958. Marks in Lee et al. 1988b:137 (synonymy).

Tribe Orthopodomyiini

Genus Orthopodomyia Theobald

andamanensis Barraud

Zavortink 1968:141 (lectotype desig.; BM).

antanosvorum Rodhain and Boutonnier

1984:220 (♂*, ♀*, P, L). Type loc.: Andaka plain, near Fort-Dauphin, Madagascar (holotype ♀; PIP).

madecassorum Rodhain and Boutonnier

1984:228 (2). Type loc.: Perinet forest, Madagascar (holotype 9; PIP).

pulcripalpis (Rondoni)

Snow 1986:361 (corrected specific epithet from <u>pulchripalpis</u>, Article 32b, ICZN 1985). <u>albionensis</u> MacGregor, 1919. Townsend 1990:39 (lectotype 3; change ?BM to BM).

Tribe Sabethini

Genus Limatus Theobald

durhami Theobald

curvirostris Laveran, 1902. Townsend 1990:65 (syntype & change ?BM to BM).

Genus Phoniomyia Theobald

deanei Lourenco de Oliviera

1983:501 (&*, &*). Type loc.: Granjas Calabria, Jacarepagua, Rio de Janeiro, Brazil (holotype & & Pe,Le; IOC).

Genus Sabethes Robineau-Desvoidy

Subgenus Davismyia Lane and Cerqueira

Davismyia Lane and Cerqueira. 1942. Harbach and Peyton 1991:149 (from genus Wyeomyia). petrocchiae (Shannon and del Ponte)

Harbach and Peyton 1991:157 (from genus Wyeomyia, holotype; change USNM to NE).

Subgenus Peytonulus Harbach

Peytonulus Harbach 1991:1. Type species: Sabethinus aurescens Lutz.

aurescens (Lutz)

Harbach 1991:1 (from subgenus Sabethinus).

fabricii Lane and Cerqueira

Harbach 1991:1 (from subgenus Sabethinus).

gorgasi Duret

Harbach et al. 1991:193 (hetotype & change A to USNM). Harbach 1991:1 (from subgenus Sabethinus).

identicus Dyar and Knab

Harbach 1991:1 (from subgenus Sabethinus).

soperi Lane and Cerqueira

Harbach 1991:1 (from subgenus Sabethinus).

undosus (Coquillett)

Harbach 1991:1 (from subgenus Sabethinus).

whitmani Lane and Cerqueira

Harbach 1991:1 (from subgenus Sabethinus).

Genus Topomyia Leicester

Subgenus Suaymyia Thurman

mengi Dong, Wang and Lu

1990:64 (3*). Type loc.: Mengla County, Yunnan Prov., P.R. China (holotype 3: YIM). spathulirostris Edwards

Miyagi, Toma, Ramakrishna and Ramalingam 1989:41 (from subgenus *Topomyia*). suchariti Miyagi and Toma

1989:16 (&*, P*, L*). Type loc.: Trak Nong, Chanthaburi Prov., Thailand (holotype & & Pe,Le; USNM).

tumetarsalis Chen and Zhang

1988:213 (3*, 9*, P*, L*). Type loc.: Luo-tian County, Guizhou Prov., P.R. China (holotype 3; GMC).

Subgenus Topomyia Leicester

angkoris Klein

Ward 1984:251 (ankoris, spelling error).

baolini Gong

1989b:220 (♂*, ♀*). Type loc.: Yingjiang County, Yunnan Prov., P.R. China (holotype ♀: YIE).

danaraji Ramalingam

1988:245 (3*, P*). Type loc.: The Gap, Selangor, Peninsular Malaysia (holotype 3 & Pe: USNM).

hardini Miyagi, Toma and Ramalingam

1989:91 (3*, 9, P*, L*). Type loc.: Mt. Serapi, Kaman, Kuching, Sarawak, Malaysia (holotype 3 & Pe,Le; USNM).

hirtusa Gong

.3

1989a:90 (♂*). Type loc.: Yunnan. P.R. China (holotype ♂: YIE).

malaysiensis Ramalingam and Banu

1987:119 (♂*, ♀*, P*, L*). Type loc.: Tambunan, Sabah, Malaysia (holotype ♂; USNM).

sabahensis Ramalingam and Ramakrishna

1988:34 (3*, 9*, P*, L*). Type loc.: Semporna, Sabah, Malaysia (holotype 3 & Pe,Le; USNM).

svlvatica Lu, Dong and Wang

1986:406 (3*). Type loc.: Mengla, Yunnan Prov., P.R. China (holotype 3; YIM).

yongi Miyagi, Toma and Ramalingam

1991:185 (&*, \Q2, P*, L*). Type loc.: Hulu Gombak Forest Reserve, Selangor, Darul Ehsan, Malaysia (holotype &; USNM).

zhangi Gong

1991:228 (♂*, ♀, L*). Type loc.: Dulong River, Gongshan County, Yunnan Prov., P.R. China (holotype ♀; YIE).

Genus Trichoprosopon Theobald

compressum Lutz

Townsend 1990:62 (add 2 syntypes; BM).

palliventer (Lutz)

Townsend 1990:116 (lectotype &; change BM, ?IOC and FMP to BM).

Genus Tripteroides Giles

Subgenus Polylepidomyia Theobald

altivallis Bonne-Wepster

Lee et al. 1989c:25 (holotype 9; change LM to ITH).

apicotriangulatus (Theobald)

Lee et al. 1989c:26 (from synonymy of atripes).

atripes (Skuse)

Lee et al. 1989c:33 (holotype 9; change MM to ANIC).

Subgenus Rachionotomyia Theobald

aranoides (Theobald)

inornata Theobald, 1910. Townsend 1990:87 (holotype &; change IM to BM).

nepenthis (Edwards)

Townsend 1990:109 (lectotype & desig.; BM).

Subgenus Rachisoura Theobald

adentata van den Assem

Lee et al. 1989c:78 (holotype & & Le; change LM to ITH).

concinnus Lee

Lee et al. 1989c:84 (from subgenus uncertain).

cuttsi van den Assem

Lee et al. 1989c:87 (holotype & & Le; change LM to ITH).

exnebulis Bonne-Wepster

Lee et al. 1989c:88 (holotype ♀; change LM to ITH).

felicitatus Bonne-Wepster

Lee et al. 1989c:89 (holotype ♀: change LM to ITH).

filipes (Walker)

papua Brug 1934. Marks in Lee et al. 1989c:90 (synonymy).

flabelliger Bonne-Wepster

Lee et al. 1989c:96 (holotype 9: change LM to ITH).

obscurus Brug

subobscurus Lee, 1946. Marks in Lee et al. 1989c:111 (synonymy).

plumiger Bonne-Wepster

Lee et al. 1989c:116 (holotype 9; change LM to ITH).

subnudipennis (Edwards)

Lee et al. 1989c:121 (from subgenus uncertain).

sylvestris (Theobald)

hilli (Taylor, 1914). Lee et al. 1989c:122 (from synonymy of filipes).

Subgenus Tripteroides Giles

bambusa (Yamada)

Townsend 1990:50 (add 11 syntypes; BM).

himaculines (Theobald)

Townsend 1990:52 (lectotype ♀ desig.; BM).

ornata Taylor 1914. Lee et al. 1989c:130 (holotype 9; change US to ANIC).

indicus (Barraud)

Townsend 1990:85 (add 4 syntypes; BM).

latispinus Gong and Ji

1989:482 (3*, 2). Type loc.: Dehong Zhou, Yunnan Prov., P.R. China (holotype 5; YIE).

plumosus (Brug)

Townsend 1990:122 (add 2 syntypes; change ?ITH to BM).

quasiornatus (Taylor)

Lee et al. 1989c:168 (holotype 9; change US to ANIC).

Genus Wyeomyia Theobald

Subgenus Caenomyiella Harbach and Peyton

Caenomyiella Harbach and Peyton, 1990:16. Type species: Sabethes fernandezyepezi Cova Garcia, Sutil Oramas and Pulido F.

fernandezyepezi Cova Garcia, Sutil Oramas and Pulido F.

Harbach and Peyton 1990:16 (from genus Sabethes).

Subgenus Dendromyia Theobald

forcipenis Lourenco de Oliviera and da Silva

1985:321 (♂*, ♀, P*, L*). Type loc.: Granjas Calabria, Jacarepagua, Rio de Janeiro, Brazil (holotype ♂ & Pe,Le; IOC).

gutierrezi Duret

Harbach et al. 1991:194 (holotype & from A to USNM).

sirivanakarni Duret

Harbach et al. 1991:194 (holotype &; from A to USNM).

Subgenus Exallomyia Harbach and Peyton

Exallomyia Harbach and Peyton, 1992:92. Type species: Wyeomyia tarsata Lane and Cerqueira.

arborea Galindo, Carpenter and Trapido

Harbach and Peyton 1992:103 (from genus Wyeomyia, subgenus Davismyia).

carrilloi (Sutil O. and Pulido F.)

Harbach and Peyton 1992:96 (from genus and subgenus Sabethes).

tarsata Lane and Cerqueira

Harbach and Peyton 1992:92 (from subgenus Dendromyia).

Subgenus Wyeomyia Theobald

oblita (Lutz)

Townsend 1990:113 (add syntype ♀; BM).

Subgenus Zinzala Zavortink

Zinzala Zavortink, 1986:46. Type species: zinzala Zavortink.

fishi Zavortink

1986:55 (&*, &, P*, L*). Type loc.: km. 146, Santa Elena Road, Estado Bolivar, Venezuela (holotype &; CAS).

zinzala Zavortink

1986:50 (δ^* , \mathcal{Q} , P^* , L^*). Type loc.: Mount Roraima summit, Estado Bolivar, Venezuela (holotype δ ; CAS).

Subgenus uncertain

ininicola Fauran and Pajot

Harbach and Peyton 1991:150 (from subgenus Davismyia).

schnusei (Martini)

Harbach and Peyton 1991:150 (from subgenus Davismyia).

Tribe Uranotaeniini

Genus Uranotaenia Lynch Arribalzaga

Subgenus *Pseudoficalbia* Theobald

ascidiicola de Meijere

Townsend 1990:46 (erroneous syntype &; BM). Peyton 1977:68 (holotype &; AM).

atra Theobald

nigerrima Taylor, 1914. Lee et al. 1989c:192 (add 3 syntypes; change LU to ANIC); Townsend 1990:109 (add 2 9 syntypes; BM).

combesi Doucet

Townsend 1990:62 (?syntype L; BM).

mengi Chen, Wang and Zhao

1989:224 (♂*, ♀*, P*, L*). Type loc.: Chishui County, Guizhou Prov., P.R. China (holotype ♀; GMC).

Subgenus Uranotaenia Lynch Arribalzaga

ulbescens Taylor

Lee et al. 1989c:223 (add 2 types; change LU to ANIC).

angolensis Cunha Ramos

1985:74 (♂*, ♀*). Type loc.: Dundo, Angola (holotype ♂: IHMT).

antennalis Taylor

Lee et al. 1989c:233 (holotype 9; change US to ANiC).

bricenoi Cova Garcia, Pulido, Escalante de Ugueto, Amarista and Mora R.

1987c:65 (3*, P*, L*). Type loc.: Cata public beach. Ocurare de las Costa municipality, Venezuela (holotype & & Pe,Le; DERM).

falcipes Banks

Townsend 1990:72 (syntype &: from NE to BM).

gabaldoni Cova Garcia, Pulido F., Escalante de Ugueto and Mora R.

1987b:94 (caicara River), Apure State, Venezuela (holotype & & Pe,Le; DERM).

iriartei Cova Garcia, Pulido F., Escalante de Ugueto and Mora R.

1987a:45 (3*, P*, L*). Type loc.: El Yaguel and Mantecal, Apure State. Venezuela (holotype 3: DERM).

lateralis Ludlow

propria Taylor, 1914. Lee et al. 1989c:252 (holotype 9; change US to ANIC). cairnsensis Taylor, 1919. Lee et al. 1989c:252 (holotype 9; change LU to ANIC).

machadoi Cunha Ramos

1986:110 (♂*, ♀, P*, L*). Type loc.: Dundo, Angola (holotype ♂; NML).

philonuxia Philip

Arnaud 1979:58 (add syntype & CAS).

riverai Duret

Harbach et al. 1991:194 (holotype of; change A to USNM).

tibialis Taylor

Lee et al. 1989c:290 (2 syntypes; change to ANIC).

Subfamily Toxorhynchitinae

Genus Toxorhynchites Theobald

Subgenus Toxorhynchites Theobald

angustiplatus Evenhuis and Steffan

1986:548 (3*, 9, P*, L*). Type loc.: Pacific Tin, Berjuntai, Batang, Selangor, Malaysia (holotype 3 & Le; USNM).

bengalensis Rosenberg and Evenhuis

1985:36 (3*, P*). Type loc.: Chunaraghat, Sylhet District, Bangladesh (holotype & & Pe,Le; USNM).

brevipalpis Theobald

ssp. abyssinicus Ribeiro

1991:43 (3*). Type loc.: Keffa Prov., Ethiopia (holotype 3; BM).

camaronis Ribeiro

1991:50 (♂*, ♀). Type loc.: Ototomo, Cameroun (holotype ♂: SSC).

christophi (Portschinsky)

changbaiensis Su and Wang, 1981. Danilov 1987a:152 (synonymy).

ssp. aurifluus (Edwards, 1921). Danilov 1987a:154 (from species to subspecies).

dundo Ribeiro

1991:50 (♂*, ♀). Type loc.: Dundo, Angola (holotype ♂: IHMT).

indicus Evenhuis and Steffan

1986:558 (♂*, ♀). Type loc.: Kuching, Sarawak, Malaysia (holotype ♂; BM).

lewisi Ribeiro

1991:53 (♂*, ♀). Type loc.: Farangbaia, Sierra Leone (holotype ♂; BM).

okinawensis Toma, Miyagi and Tanaka

1990:345 (♂*, ♀, P*, L*). Type loc.: Ada, Okinawajima, Japan (holotype ♀ & Pe,Le; HUJ). rajah Tsukamoto

1989:221 (& 9, P*, L*). Type loc.: Mt. Kinabalu, Sabah, Malaysia (holotype &: NMST).

ramalingami Evenhuis and Steffan

1986:566 (3*, 9, P*, L*). Type loc.: Bukit Puan Forest Reserve. Belait Dist.. Brunei (holotype 3 & Pe,Le; USNM).

rickenbachi Ribeiro

1991:54 (3*, 2). Type loc.: Elouden, Cameroun (holotype 3; SSC).

rodhaini Ribeiro

1991:57 (♀*). Type loc.: Tai Forest, Ivory Coast (holotype ♀: PIP).

speciosus (Skuse)

Lee et al. 1988c:90 (holotype & change MM to ANIC).

Fossil Species

Genus Asioculicus Hong

Asioculicus Hong, 1976 (in Anonymous 1976:86). Type species: damiaoensis Hong.

damiaoensis Hong (Late Jurassic—Early Cretaceous)

1976 (in Anonymous 1976:86) (adult). Type loc.: Inner Mongolia and Liao Ning, P.R. China (LU).

longipodus Hong and Wang (? Lower Cretaceous)

1976 (in Anonymous 1976:87 (9*). Type loc.: Zhuo Zi Xian, Fu Sheng Gong, She, Hong Tu Wang, Inner Mongolia, P.R. China (LU).

Genus Culex Linnaeus

erikae Szadziewski and Szadziewska (Upper Eocene) 1985:515 (9*). Baltic amber (holotype 9; MNB).

Rejected Name

peus Speiser, Culex. United States.

1904:148. International Commission on Zoological Nomenclature. 1991:179 (suppression by Opinion 1644).

Nomina nuda

ainshamsi Gad, El Said, Hassan and Shoukry, Anopheles 1987:214.

allopha (Lutz and Peryassu), Anopheles

Lourenco de Oliviera and Deane 1984:509.

melanotarsis Director General Medical Services, Anopheles, Cellia

1943:8. Lee et al. 1988a:314 (not validly published).

moenensis Ivengar, Aedes

1955:30. Unavailable name: Article 12a(i). ICZN 1985.

nigra Christophers. Anopheles

1924:45. Townsend 1990:109 (unavailable name; articles 11e and 12a, ICZN 1985).

papuensis De Rook. Anopheles

1935:25. Lee et al. 1988a:314 (probably a *Bironella* species).

solomonensis Cumpston, Anopheles

1924:1402, Unavailable name; Article 12a(i), ICZN 1985.

subcomplosa Del Ponte, Wyeomvia (Dendromvia)

1939:541. (Note 24).

TYPE DEPOSITORIES

ESE Entomological Society of Egypt, Cairo, Egypt.

FSP Faculdade de Saude Publica, Universidade de Sao Paulo, Sao Paulo, Brazil.

HUJ Entomological Institute, Hokkaido University, Hokkaido, Japan.

IZ Institute of Zoology, Academica Sinica, Beijing, P.R. China.

KIM Kumming Institute of Medical Research, Kumming, P.R. China.

MNB Paleontologisches Museum, Museum fur Naturkunde, Berlin, Germany.

NIV National Institute for Virology, Sandringham, South Africa.

SIP Sichuan Institute of Parasitic Disease Control, Chengdu, P.R. China.

TMMC Department of Parasitology, Third Military Medical College, Chongquing, P.R. China.

VBDK Division of Vector Borne Diseases, Ministry of Health, Nairobi, Kenya.

YIE Yunnan Institute of Epidemiology, Xiaguan, P.R. China.

YIM Yunnan Institute of Malaria Control, Simao, P.R. China.

TAXONOMIC NOTES

1. Marks (1976) removed Anopheles corethroides from synonymy with An. stigmaticus Skuse through publication of the name in a list of the Culicidae of the Blackdown Tableland, Australia. Although she did not provide an explanation for the removal of An. coreth-

roides from synonymy, such a justification verifying the specific status of An. corethroides was provided in Lee et al. (1988a:54).

2. Hii et al. (1988) discussed the surname of the author of *Anopheles sulawesi* and pointed out that it should be Waktoedi rather than

Koesoemawinangoen as used by Knight and Stone (1977). According to Indonesian custom, the surname precedes the first name of an individual. Therefore, species described or coauthored by Waktoedi Koesoemawinangoen should have Waktoedi designated as the author. The following taxa listed with Koesoemawingoen as sole or junior author need to be attributed to Waktoedi: Anopheles (Anopheles) gigas pantiarbatu Waktoedi. Anopheles (Cellia) ludlowae torakala Stoker and Waktoedi, Anopheles (Cellia) sulawesi Waktoedi [prior attribution by Hii et al. (1988)], Anopheles (Cellia) tesselatus kalawara Stoker and Waktoedi and Anopheles (Cellia) albino Stoker and Waktoedi (= .4n. vagus).

- 3. Gillies and Coetzee (1987) did not designate a type specimen nor the type depository in their original description of Anopheles (Cellia) lounibosi. Townsend (1990:96) suggested that the holotype might be in the ORSTOM collection at Bondy, France. In a 1991 letter, M.T. Gillies stated that the holotype was a 4th instar larva which was deposited in the Natural History Museum, London, with the following label: Anopheles rabaiensis, 28.vi.1977, coll. L.P. Lounibos in Pandanus rabaiensis, Kombeni R., Rabai, Kilifi Dist., KENYA.
- 4. Gillies and Coetzee (1987) did not mention the sex of the adult type specimen when they described *Anopheles* (*Cellia*) vaneedeni. Townsend (1990:146) stated that the holotype was a male. However, M.T. Gillies stated in a 1991 letter that he visited the Natural History Museum and examined the holotype which was a female. The specimen label reads: Pusela, Tzaneen, resting outside. det. M. Coetzee.
- 5. Townsend (1990:147) stated that the Natural History Museum collection contained nine syntypes of Anopheles (Cellia) varuna from Sri Lanka. These specimens cannot be syntypes as Iyengar (1924:25) stated: "Described from a type female and many co-type females from the vicinity of Calcutta, collected by me." Iyengar does mention an unspecified number of specimens of An. varuna

collected by R. Senior-White at Matale, Ceylon, but in no way could these specimens be construed as syntypes. The current location of Iyengar's type and cotypes is unknown (Harrison 1980).

- 6. The original description of Aedes (Aedimorphus) bambiotai did not mention the type locality other than give the country. Thomas F. Gaffigan examined the holotype male in the USNM and observed the following information upon the specimen labels: Ivory Coast:/Andiopodoume forest/RF 1-No. 1/-23.06.86/Ae bambiotai/B. Geoffroy Rec Det.//Holotype/Ae. (Adm.)/bambiotai/ Geoffroy.
- 7. Aedes (Finlaya) gilcolladoi was described by Sanchez-Covisa V. et al. (1985) from an unspecified number of larvae (more than 50) with neither a type designation nor a specified type locality other than "Espana Peninsular." The above specimens must be considered syntypes according to the ICZN 1985, Article 73b. Attempted correspondence to the authors did not produce a reply.
- 8. Knight and Marks (1952) designated a neotype female for Aedes (Finlaya) mallochi Taylor since they could find no specimens from the type series. In 1990, Townsend mentioned the presence of a syntype female in the Natural History Museum (BM) collection. Since this constitutes the rediscovery of a name-bearing type, this situation should be referred to the ICZN to rule whether the neotype of Knight and Marks is or is not to be retained as the name-bearing type (ICZN 1985, Article 75h).
- 9. The validity of the species name Aedes (Levua) geoskusea was discussed in detail by Lee et al. (1984:44), who contend that Ae. suvae Stone and Bohart. 1944 was the first validly published name for this species. I concur with the interpretation of Knight and Stone (1977) that Ae. geoskusea is a valid name on the basis of publication and priority (ICZN 1985, Articles 11a, 11b, 13a(i) and 23a).
- 10. The National Institute for Virology (NIV) maintained a number of type specimens after it became independent from the South Afri-

can Institute for Medical Research (SAIM). The primary types remaining at both institutes were listed by Segerman (1990). The disposition of the holotype of Aedes (Ochlerotatus) juppi was not mentioned in Segerman's paper. In a 1991 letter, J. Segerman stated: "I have checked with Dr. Peter Jupp at the National Institute for Virology and he tells me that the Holotype and Allotype of Aedes (Ocherotatus) juppi are both still housed there."

- 11. The original description of Aedes (Rusticoidus) krymmontanus omitted the exact type locality, sex of the holotype and type depository. A letter from E. V. Alekeseev (1992) only mentioned the "southern and northern mountainsides of Crimean mountains... in the neighborhoods of Simferopol, Bachisaray. Alushta. Yalta and Pheodosia" and that the holotype was in the author's collection.
- 12. Stone et al. (1959) and Knight and Stone (1977) were usually quite accurate in their listings of the original descriptions of Culicidae in their catalogs. In the instance of two Afrotropical Aedes species. Aedes (Stegomyia) calceatus and Aedes (Stegomyia) soleatus, they erred by 17 years. They evidently missed the description of these two species by Edwards in 1924 in an appendix to a paper by W.E. Haworth and attributed both species to Edwards (1941). Townsend (1990) provided the correct citations.
- 13. A lectotype for Aedes (Verrallina) varietas was designated by Knight and Hull (1953:474) for the single male specimen from the type series in the BM. The identity of the specimen was subsequently confirmed by both Delfinado (1968:40) and Reinert (1974:92) even though the specimen lacked a lectotype label. Townsend (1990:147) affixed a label to the specimen and stated: "LECTO-TYPE male ... here designated." Although Recommendation 72E of the ICZN (1985) recommends that name-bearing types should be labeled in such a manner that will unmistakably denote their status, the previous descriptions of the Knight and Hull lectotype were such that no confusion could occur con-

cerning the status of the specimen. Thus, the subsequent designation by Townsend (1990) was unjustified.

- 14. Townsend (1990:77) changed the status of <u>fuscus</u> from a synonym of <u>Armigeres</u> (<u>Armigeres</u>) malayi to a valid species. Since no justification was provided for this changed status, it should be considered as an unjustified action. A similar situation exists in respect to the improper elevation of <u>clavipalpus</u> from a subspecies of <u>Mimomyia</u> (<u>Mimomyia</u>) chamberlaini (Townsend 1990:61).
- 15. Belkin et al. (1968:13) indicated that the type of Psorophora (Janthinosoma) chaquensis was not present in the Instituto Nacional de Microbiologia, Buenos Aires, according to O.H. Casal. An acknowledgment was given to Alan Stone for examining material in the USNM so it may be assumed that Stone too did not find the type. While curating the USNM mosquito collection in 1992, T.V. Gaffigan found an adult female in a tray containing Psorophora lutzii which conformed to the description of the single female type described by Paterson and Shannon (1927:9) from Tres Pozos. Embarcacion. Salta. The specimen bears four labels in handprinted letters, reading from top to bottom: 1) Tres Pozos/Embarcacion/Salta, 20-4-27/ E. S. Shannon: 2) Type/Psorophora/chacoensis [sic]/Paterson &/Shannon; 3) Psorophora/ lutzii/Theob.; and 4) Psorophora/albipes Th. This specimen is undoubtedly the missing holotype.
- 16. Sirivanakarn (1976:151) designated a lectotype for Culex (Culex) fuscifurcatus. This was an invalid selection as Townsend (1990:77) stated that the holotype male of fuscifurcatus was deposited in the Natural History Museum.
- 17. Sirivanakarn (1976:159) designated a lectotype for Culex (Culex) mimulus from one of the two syntypes of this species from ?Kuching, Sarawak. However, Townsend (1990:105) said that Sirivanakarn did not label the lectotype specimen nor did he provide an indication in his paper which individual should be the lectotype. Since insufficient

data were presented for the recognition of the lectotype, this selection was invalid (ICZN 1985, Article 74b, Recommendation 74C).

18. Culex (Culex) telesilla was described from seven larval and seven pupal exuviae without designation of a type (de Meillon et al. 1945:91). The adult male and female of Cx. telesilla were later described by de Meillon (1947) with the statement: "The description of the larva of this species (De Meillon et al, Bull. ent. Res., 36, 91, 1945) was quoted from a manuscript by De Meillon and Lavoipierre. Mention of this was unfortunately omitted." De Meillon also stated that the types were deposited in the SAIM. Although de Meillon may have intended that an adult male be designated the holotype, the name Cx. telesilla must be based upon the specimens mentioned in the 1945 publication. These specimens should be considered syntypes; from which a lectotype can be designated.

19. Sirivanakarn (1972:52) designated a lectotype for Culex (Culex) hackeri. Townsend (1990:81) indicated that this was an invalid designation as Edwards labeled and designated a holotype male in his original publication.

20. Lee et al. (1989b:105) stated that the lectotype male of Culex (Lophoceraomyia) fraudatrix which was designated by Sirivanakarn (1968:156) was the same specimen which Colless (1960:256) used for the lectotype of fraudatrix. Since Sirivanakarn's designation of a lectotype (1968) occurred eight years after Colless' designation (1960), the later designation has no validity (ICZN 1985, Article 74a). 21. Sirivanakarn (1977:132) designated a lectotype for Culex (Lophoceraomyia) hewitti. This was deemed unnecessary by Townsend (1990:82), who said that Edwards plainly indicate one of the males from the type series as the holotype.

22. Neil L. Evenhuis (1990 letter) was unable to find the holotype of Culex (Lophoceraomyia) pseudorubithoracis at the Bishop Museum where it was presumably deposited by the author. A search for the type in the USNM

by T.F. Gaffigan did not reveal it either. At present the status of the type may be considered as location unknown.

23. Taylor (1914:201) described Mansonia (Mansonioides) papuensis from four females. but did not designate a type. Lee et al. (1988b:133) said the holotype of Mn. papuensis was in the ANIC. This specimen can only be consided a syntype which is of equal status to the syntype in the Natural History Museum (Townsend 1990:118) since no subsequent

author designated a lectotype.

24. Del Ponte (1939:541) published the name Wyeomyia (Dendromyia) subcomplosa as a new species in a table enumerating 5 character states for the identification of adult female Sabethini. In the table, both subcomplosa and Wyeomyia (Dendromyia) complosa were listed as possessing the same five character states. Since Del Ponte did not provide a means of differentiating this taxon, the name subcomplosa is not available (ICZN 1985. Article 13a(i)) and may be considered as a nomen nudum.

REFERENCES CITED

Alekseev, E.V. 1989. Bloodsucking mosquito Aedes (Rusticoidus) krymmontanus Alekseev, sp. n., a relic of the entomofauna of the Crimea. (In Russian). Parazitologija (Leningr.) 23:173–178.

Amerasinghe, F.P. 1989. Redescription of Heizmannia (Heizmannia) greeni Theobald from Sri Lanka (Diptera: Culicidae). Mosq. Syst. 21:83-99.

Anonymous. 1976. Paleontological atlas of northern China, part of Inner Mongolia (in Chinese). Vol. 2. Geology Publishing House, Beijing.

Arnaud, P.H., Jr. 1979. A catalog of the types of Diptera in the collection of the California Academy of Sciences. Myia 1:1-505.

Barr, A.R. and P. Guptavanij. 1989. Anopheles hermsi N. SP. [sic], an unrecognized American species of the Anopheles maculipennis group (Diptera: Culicidae). Mosq. Syst. (1988) 20:353-356.

- Belkin, J.N., R.X. Schick and S.J. Heinemann. 1968. Mosquito studies (Diptera: Culicidae). XI. Mosquitoes originally described from Argentina, Bolivia, Chile, Paraguay. Peru. and Uruguay. Contrib. Am. Entomol. Inst. (Ann Arbor) 4(1):9–29.
- Bram. R.A. 1967. Contributions to the mosquito fauna of Southeast Asia.—II. The genus *Culex* in Thailand (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 2(1):1–296.
- Brust. R.A. and L.E. Munstermann. 1992. Morphological and genetic characterization of the *Aedes (Ochlerotatus) communis* complex (Diptera: Culicidae) in North America. Ann. Entomol. Soc. Am. 85:1–10.
- Cambournac, F.J.C., V. Petrarca and M. Coluzzi. 1982. *Anopheles arabiensis* in the Cape Verde Archipelago. Parassitologia 24:265-267.
- Chen Hanbin. 1989. A new species of *Culex* (*Culiciomyia*) from Yunnan (Diptera: Culicidae). (In Chinese). Acta Zootaxonomica Sin. 14:86-90.
- Chen Hanbin and Zhao Hong. 1985. A new species of the genus *Culex* from China (Diptera: Culicidae). (In Chinese). Entomotaxonomia 7:265-269.
- Chen Hanbin and Zhang Peixyun. 1988. Topomyia (Suamyia) tumetarsalis, a new species from China (Diptera: Culicidae). (In Chinese). Acta Entomol. Sin. 31:213-218.
- Chen Hanbin, Wang Shaohui and Zhao Hong. 1939. A new species of *Uranotaenia* breeding in crab holes from Guizhou Province of China. (In Chinese). Acta Zootaxonomica Sin. 14:224–228.
- Coetzee, M. 1984. A new species of *Anopheles* (*Anopheles*) from Namibia (Diptera: Culicidae). Syst. Entomol. 9:1-8.
- Coetzee, M., J. Segerman and R.H. Hunt. 1987. Description of a new species *Anopheles* (*Cellia*) kosiensis (Diptera: Culicidae) from Zululand, South Africa. Syst. Entomol. 12:23-28.
- Colless, D.H. 1960. Some species of Culex (Lophoceraomyia) from New Guinea and

- adjacent islands, with descriptions of four new species and notes on the male of *Culex fraudatrix* Theobald (Diptera: Culicidae). Proc. Linn. Soc. N.S.W. 84:382-390.
- Cova Garcia, P., J. Pulido F., C. Escalante de Ugueto and J.D. Mora F. 1987a. *Uranotaenia iriartei* (Diptera, Culicidae), nueva especie de Venezuela. Bol. Dir. Malariol. Saneam. Amb. 27:45-52.
- Cova Garcia, P., J. Pulido F., C. Escalante de Ugueto and J.D. Mora R. 1987b. *Uranotaenia gabaldoni* (Diptera, Culicidae), nueva especie de Venezuela. Bol. Dir. Malariol. Saneam. Ambient. 27:94–104.
- Cova Garcia, P., J. Pulido, C. Escalante de Ugueto, J. Amarista and J.D. Mora. 1987c. *Uranotaenia bricenoi* (Diptera, Culicidae), nueva especie de Venezuela. Bol. Dir. Malariol. Saneam. Amb. 27:65-73.
- Cumpston, J.H.H. 1924. Disease distribution in the Pacific Basin. Proc. Pacific Sci. Congress (Australia, 1923) 2:1400-1407.
- Cunha Ramos, H. da. 1985. Research on the mosquitoes of Angola (Diptera: Culicidae) XVII—Description of *Uranotaenia* (*Uranotaenia*) angolensis sp. nov. Bol. Soc. Port. Entomol. 1 (Suppl. 1):73-82.
- Cunha Ramos, H. da. 1986. Research on the mosquitoes of Angola (Diptera: Culicidae) XVIII—Description of *Uranotaenia* (*Uranotaenia*) machadoi sp. n. Mosq. Syst. 18:110-117.
- Cunha Ramos, H. da and H. Ribeiro. 1990. Research on the mosquitoes of Angola (Diptera: Culicidae). XX—Eretmapodites mortiauxi, a new species of the leucopus group. Bol. Soc. Port. Entomol. 4:138-144.
- Danilov, V.N. 1984. Culiseta (Culicella) setivalva Maslov as a synonym of C. (C.) fumipennis Stephens. (In Russian). Parazitologija 18:313-317.
- Danilov, V.N. 1985. Mosquitoes of the subgenus *Edwardsaedes* of the Palearctic, with description of the larva of *Aedes* (*Edw.*) *bekkui*. (In Russian). Parazitologija 19:378-381.
- Danilov, V.N. 1987a. On mosquitoes of the genus Toxorhynchites of the Soviet Union and closely related species in eastern and

- southeastern Asia (Culicidae). (In Russian), Parazitologija 21:151-155.
- Danilov, V.N. 1987b. Mosquitoes of the subgenus *Aedes* (Diptera, Culicidae) of the USSR fauna. II. *Aedes dahuricus* sp.n. (In Russian). Vestn. Zool. 1987 (4):35-41.
- Danilov, V.N. 1989. Two new Afrotropical subgenera of the mosquito genus *Culex* (Diptera, Culicidae). (In Russian). Entomol. Obozr. 68:790-797.
- Danilov, V.N. and R.M. Gornostaeva. 1987. A new species of mosquito. Aedes (Ochlerotatus) intermedius sp.n. (Diptera, Culicidae). (In Russian). Parazitologija 21:612-619.
- Delfinado, M.D. 1968. Contributions to the mosquito fauna of Southeast Asia.—III. The genus *Aedes*, subgenus *Neomacleaya* Theobald in Thailand. Contrib. Am. Entomol. Inst. (Ann Arbor) 1(8):1-56.
- Del Ponte, E. 1939. Identificación de "Sabethini" (Diptera: Culicidae) por medio de tarjetas perforadas. Physis (B. Aires) 17;535– 541.
- de Meillon, B. 1947. New records and species of biting insects from the Ethiopian region. II. J. Entomol. Soc. S. Afr. 10:110-124.
- de Meillon, B., M. Parent and L. O'C. Black. 1945. Descriptions of new iarvae and pupae of Ethiopian Culicini. Bull. Entomol. Res. 36:85-101.
- De Rook, H. 1935. Health of Netherlands New Guinea, pp. 23-27. Rep. 2nd Int. Pac. Health Conf., Sydney.
- Director General Medical Services, Land Forces Headquarters. 1943. Notes on mosquito-borne diseases in Australasia. Australian Military Forces, 29 pp. (Not for publication).
- Dong Xueshu and Wang Xuezhong. 1985. A new species of genus *Anopheles* (Diptera: Culicidae). (In Chincse). Zool. Res. 6:117-122.
- Dong Xueshu, Wang Xuezhong and Lu Baolin. 1990. A new species of *Topomyia* from Yunnan Province, China (Diptera: Culicidae). (In Chinese). Acta Zootaxonomica Sin. 15:64-66.
- Dyar, H.G. 1921. The genus Haemagogus

- Williston (Diptera: Culicidae). Insec. Inscit. Menst. 9:101-114.
- Edwards, F.W. 1924. Appendix. Descriptions of two new species of mosquitoes from coconut palms in East Africa, pp. 197–198. *In*: W.E. Haworth. Mosquitoes and execute palms. A mosquito survey of palm trees in East Africa and the problems resulting therefrom. Trans. R. Soc. Trop. Med. Hyg. 18:162–198.
- Edwards, F.W. 1941. Mosquitoes of the Ethiopian region. III.—Culicine adults and pupae. British Museum (Natural History). London.
- Eldridge, B.F. and R.E. Harbach. 1989. Culex stigmatosoma Dyar, 1907 and C. thriambus Dyar, 1921 (Insecta, Diptera): proposed conservation of the specific names by the suppression of C. peus Speiser, 1904. Bull. Zool. Nomencl. 46:247-249.
- Evenhuis, N.L. and S.M. Gon III. 1989. Family Culicidae, pp. 191-218. *In*: N.L. Evenhuis (ed.), Catalog of the Diptera of the Australasian and Oceanian regions. Bishop Museum Special Publication 86. Bishop Museum Press, Honolulu, and E.J. Brill, Leiden.
- Evenhuis, N.L. and W.A. Steffan. 1986. Classification of the subgenus *Toxorhynchites* (Diptera: Culicidae) II. Revision of the *Toxorhynchites acaudatus* group. J. Med. Entomol. 23:538-574.
- Fontenille, D. and J. Brunhes. 1985. Trois nouveaux culicides de Madagascar: Aedes (Aedimorphus) albodorsalis n. sp., Aedes (Aedimorphus) masoalensis n. sp. et Aedes (Aedimorphus) mathioti n. sp. Cah. O.R.S.T.O.M. Entomol. Med. Parasitol. (1984) 22:151-155.
- Forattini, O.P. and M.A.M. Sallum. 1985. A new species of *Culex* (*Melanoconion*) from southern Brazil (Diptera: Culicidae). Rev. Saude Publica 19:171-182.
- Forattini, O.P. and M.A.M. Sallum. 1987a. Studies on some species of *Culex* (*Melanoconion*), with the description of a new one from southern Brazil (Diptera: Culicidae). Rev. Saude Publica 21:123-156.
- Forattini, O.P. and M.A.M. Sallum. 1987b.

- A new species of *Culex* (*Melanoconion*) from inland southern Brazil (Diptera: Culicidae). Mosq. Syst. 19:167–172.
- Forattini, O.P. and M.A.M. Sallum. 1989a. A new species of *Culex* (*Melanoconion*) from Atlantic Tropical System of southern Brazil (Diptera: Culicidae). Mem. Inst. Oswaldo Cruz Rio 84:1-4.
- Forattini, O.P. and M.A.M. Sallum. 1989b. Taxonomic study and redescription of Culex (Melanoconion) theobaldi (Lutz. 1904) (Diptera: Culicidae). Mem. Inst. Oswaldo Cruz Rio (Suppl. 4):201-208.
- Forattini, O.P., M.A.M. Sallum and I. Kakitani. 1988. Catalogo das colecoes entomologicas da Faculdade de Saude Publica da Universidade de Sao Paulo—(2a serie II)—Culicidae. Rev. Saude Publica 22:519-547.
- Gad, A.M., S. El Said, A.N. Hassan and A. Shoukry. 1987. The distribution and ecology of the mosquitoes in the Red Sea Governorate. Egypt. J. Egypt. Soc. Parasitol. 17:207–221.
- Geoffroy, B. 1987. The Aedes (Aedimorphus)
 Domesticus Group (Diptera, Culicidae). I.
 New species, descriptions of Aedes hambiotai and Aedes hancoi, Mosq. Syst. 19:100–110.
- Gillies. M.T. and M. Coetzee. 1987. A supplement to the Anophelinae of Africa south of the Sahara (Afrotropical Region). Publ. S. Afr. Inst. Med. Res. 55, 143 pp.
- Gong Zhengda. 1989a. A new species of genus *Topomyia* from Yunnan. China (Diptera: Culicidae). (In Chinese). Acta Entomol. Sin. 32:90-91.
- Gong Zhengda. 1989b. A new species of the genus *Topomyia* from Yunnan Province. China (Diptera: Culicidae). (In Chinese). Acta Zootaxonomica Sin. 14:220-223.
- Gong Zhengda. 1991. A new species of the subgenus *Topomyia* of genus *Topomyia* from Yunnan, China (Diptera: Culicidae). (In Chinese). Acta Zootaxonomica Sin. 16:228-231.
- Gong Zhenda and Ji Shuhong. 1989. A new species of *Tripteroides* from Yunnan (Diptera: Culicidae). (In Chinese). Acta Entomol. Sin. 32:482-484.

- Gong Zhengda and Lu Baolin. 1986. A new *Aedes* of subgenus *Finlaya* from Yunnan, China. (In Chinese). Zool. Res. 7:1-4.
- Gong Zhengda and Lu Baolin. 1991. A new subgenus and species of the *Aedes* (Diptera: Culicidae) from Yunnan, China. (in Chinese). Entomotaxonomia 13:55-59.
- Grjebine. A. 1986. Insectes Dipteres Culicidae Culicinae Ficalbiini. Faune de Madagascar 68. Museum National d'Histoire Naturelle. Paris.
- Harbach. R.E. 1985a. Pictoral keys to the genera of mosquitoes, subgenera of *Culex* and the species of *Culex* (*Culex*) occurring in southwestern Asia and Egypt, with a note on the subgeneric placement of *Culex deserticola* (Diptera: Culicidae). Mosq. Syst. 17:83–107.
- Harbach, R.E. 1985b. A new species. *Culex* (*Culex*) *litwakae* (Diptera: Culicidae), from the coastal region of Kenya. Mosq. Syst. 17:254–265.
- Harbach, R.E. 1987. *Culex verutus*, a new species of the subgenus *Culex* (Diptera: Culicidae) from Sierra Leone. Mosq. Syst. (1986) 18:216–229.
- Harbach. R.E. 1988. The mosquitoes of the subgenus *Culex* in southwestern Asia and Egypt (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 24(1): vi + 1-240.
- Harbach, R.E. 1991. A new subgenus of the genus *Sahethes* (Diptera: Culicidae). Mosq. Syst. 23:1-9.
- Harbach, R.E. and E.L. Peyton. 1990. A new subgenus in Wyeomyia (Diptera: Culicidae), with the reclassification and redescription of the type species. Sabethes fernandezyepezi. Mosq. Syst. 22:15-23.
- Harbach, R.E. and E.L. Peyton. 1991. Transfer of the subgenus *Davismyia* from *Wyeomyia* to *Sabethes* and description of the type species, *Miamyia petrocchiae* (Diptera: Culicidae). Mosq. Syst. (1990) 22:149-159.
- Harbach, R.E. and E.L. Peyton. 1992. A new subgenus of Wyeomyia (Diptera: Culicidae), with the reclassification and redescription of Wyeomyia (Davismyia) arbo-

- rea, Wyeomyia (Dendromyia) tarsata and Sabethes (Sabethes) carrilloi. Mosq. Syst. (1991) 23:92-109.
- Harbach, R.E. and R. Rattanarithikul. 1988. A new species of the subgenus *Eumelanomyia* of *Culex* (Diptera: Culicidae) from Thailand. Mosq. Syst. 20:69-76.
- Harbach, R.E., C. Dahl and G.B. White. 1985. *Culex* (*Culex*) pipiens Linnaeus (Diptera: Culicidae): concepts, type designations, and description. Proc. Entomol. Soc. Wash. 87:1–24.
- Harbach, R.E., B.A. Harrison and A.M. Gad. 1984. Culex (Culex) molestus Forskal (Diptera: Culicidae): neotype designation, description, variation, and taxonomic status. Proc. Entomol. Soc. Wash. 86:521– 542.
- Harbach, R.E., B.A. Harrison, A.M. Gad, M.A. Kenawy and S. El-Said. 1989. Records and notes on mosquitoes (Diptera: Culicidae) collected in Egypt. Mosq. Syst. (1988) 20:317-342.
- Harbach, R.E., W.L. Jakob and E.L. Peyton. 1986. Recognition of *Culex bidens* Dyar and *Culex interfor* Dyar (Diptera: Culicidae) as separate species. Mosq. Syst. 18:139-144.
- Harbach, R.E., E.L. Peyton and B.A. Harrison. 1984. A new species of *Culex* (*Melanoconion*) from southern South America (Diptera: Culicidae). Mosq. Syst. 16:185–200.
- Harbach, R.E., T.V. Gaffigan and J.E. Pecor. 1991. The J. Pedro Duret mosquito collection (Diptera: Culicidae). Mosq. Syst. (1990) 22:192-195.
- Harrison, B.A. 1980. Medical entomology studies—XIII. The Myzomyia Series of Anopheles (Cellia) in Thailand, with emphasis on intra-interspecific variations (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 17(4):1-195.
- Harrison, B.A. 1987. Culex subgenus Thaiomyia Bram, a synonym of Culex subgenus Culiciomyia Theobald (Diptera: Culicidae). Mosq. Syst. 19:111-116.
- Harrison, B.A., R. Rattanarithikul, E.L. Peyton and K. Mongkolpanya. 1991. Taxo-

- nomic changes, revised occurrence records and notes on the Culicidae of Thailand and neighboring countries. Mosq. Syst. (1990) 22:196-227.
- Hii, J.L.K., E.L. Peyton and V.Y. Shang. 1988. Redescription of the adult and first descriptions of the larva and pupa of *Anopheles (Cellia) sulawesi* Waktoedi, a species of the Leucosphyrus Group from Sulawesi. Indonesia (Diptera: Culicidae). Mosq. Syst. 20:41-54.
- Huang, Y.-M. 1986a. Notes on the *Aedes* (*Diceromyia*) furcifer group, with a description of a new species (Diptera: Culicidae). Proc. Entomol. Soc. Wash. 88:634–649.
- Huang, Y.-M. 1986b. Aedes (Stegomyia) corneti, a new species of the africanus subgroup (Diptera: Culicidae). Proc. Entomol. Soc. Wash. 88:764-776.
- Huang, Y.-M. 1987. A new African species of *Aedes* (Diptera: Culicidae). Mosq. Syst. 17:108-120.
- Huang, Y.-M. 1988a. Aedes (Stegomyia) josiahae, a new species of the simpsoni subgroup (Diptera: Culicidae). Proc. Entomol. Soc. Wash. 90:153-163.
- Huang, Y.-M. 1988b. The Aedes (Stegomyia) pseudonigeria group with emphasis on the species from the Afrotropical Region (Diptera: Culicidae). Mosq. Syst. 20:1-20.
- Huang, Y.-M. 1990. The subgenus Stegomyia of Aedes in the Afrotropical Region I. The Africanus Group of species (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Gainesville) 26(1):1-90.
- International Commission on Zoological Nomenclature (ICZN). 1985. International Code of Zoological Nomenclature. Third edition adapted by the XX General Assembly of the International Union of Biological Sciences. Int. Trust for Zool. Nomenclature, London and Univ. Calif. Press. Berkeley and Los Angeles.
- International Commission on Zoological Nomenclature. 1991. Opinion 1644. Culex stigmatosoma Dyar, 1907 and C. thriambus Dyar, 1921 (Insecta, Diptera): specific names conserved. Bull. Zool. Nomencl. 48:179-180.

.1

- Iyengar, M.O.T. 1924. On the Indian anophelines of the *funestus* group and the description of a new species (Diptera, Culicidae). Ind. J. Med. Res. 12:23–29, 1 pl.
- Iyengar, M.O.T. 1955. Distribution of mosquitoes in the South Pacific Region. South Pac. Comm. Tech. Pap. 86:iv + 47. 1 map.
- Jeffery, J., P. Oothuman and A. Rudnick. 1987. Culex (Eumelanomyia) richardgarciai, a new species of mosquito from Peninsular Malaysia (Diptera: Culicidae). Mosq. Syst. 19:139-142.
- Kang Wanmin, Tan Jun, Cao Chonghua, Cheng Huailu, Yang Yuhua and Huang Rongan, 1984. *Anopheles liangshanensis*, a new species related to *A. kweiyangensis* and *A. sinensis* from Sichuan, China (Diptera: Culicidae). (In Chinese). Sichuan J. Zool, 3:11-14.
- Knight, K.L. 1978. Supplement to a catalog of the mosquitoes of the world (Diptera: Culicidae). Thomas Say Found. 6 (Suppl.):1-107.
- Knight, K.L. and B.A. Harrison. 1988. A new *Aedes (Finlaya)* of the Niveus-Subgroup (Diptera: Culicidae). Mosq. Syst. (1937) 19:212-236.
- Knight, K.L. and W.B. Hull. 1953. The Aedes mosquitoes of the Philippine Islands. III. Subgenera Aedimorphus. Banksiella. Aedes and Cancraedes (Diptera, Culicidae). Pac. Sci. 7:453-481.
- Knight, K.L. and E.N. Marks. 1952. An annotated checklist of the mosquitoes of the subgenus *Finlaya*, genus *Aedes*. Proc. U.S. Nat. Mus. 101:513-574.
- Knight, K.L. and A. Stone. 1977. A catalog of the mosquitoes of the world (Diptera: Culicidae). Second edition. Thomas Say Found. 6: xi + 1-611 pp.
- Kulasekera, V.L., B.A. Harrison and F.P. Amerasinghe. 1989. Anopheles (Anopheles) peytoni new species, the "An. insulae-florum" auct. from Sri Lanka (Diptera: Culicidae). Mosq. Syst. (1988) 20:302-316.
- Kulasekera, V., K.L. Knight and R.E. Harbach. 1990. Aedes (Finlaya) axitiosus, new species of the Niveus Subgroup (Diptera: Culicidae) from East Malaysia. Mosq. Syst.

- 22:26-33.
- Lee, D.J., M.M. Hicks, M. Griffiths, R.C. Russell and E.N. Marks, 1982. The Culicidae of the Australasian Region. Volume 2. Entomol. Monogr. 2. Canberra.
- Lee, D.J., M.M. Hicks, M. Griffiths, R.C. Russell and E.N. Marks. 1984. The Culicidae of the Australasian Region. Volume 3. Entomol. Monogr. 2. Canberra.
- Lee, D.J., M.M. Hicks, M. Griffiths. M.L. Debenham, J.H. Bryan, R.C. Russell, M. Geary and E.N. Marks. 1987. The Culicidae of the Australasian Region. Volume 4. Entomol. Monogr. 2, Canberra.
- Lee, D.J., M.M. Hicks, M. Griffiths, M.L. Debenham, J.H. Bryan, R.C. Russell, M. Geary and E.N. Marks, 1988a. The Culicidae of the Australasian Region. Volume 5. Entomol. Monogr. 2, Canberra.
- Lee, D.J., M.M. Hicks, M.L. Debenham, M. Griffiths, J.H. Bryan and E.N. Marks. 1988b. The Culicidae of the Australasian Region. Volume 9. Entomol. Monogr. 2, Canberra.
- Lee, D.J., M.M. Hicks, M.L. Debenham, M. Griffiths, J.H. Bryan and E.N. Marks, 1988c. The Culicidae of the Australasian Region, Volume 10. Entomol. Monogr. 2, Canberra.
- Lee, D.J., M.M. Hicks, M. Griffiths, M.L. Debenham, J.H. Bryan, R.C. Russell, M. Geary and E.N. Marks, 1988d. The Culicidae of the Australasian Region. Volume 6 Entomol. Monogr. 2. Canberra.
- Lee, D.J., M.M. Hicks, M.L. Debenham, M. Griffiths, E.N. Marks, J.H. Bryan and R.C. Russell. 1989a. The Culicidae of the Australasian Region. Volume 7. Entomol. Monogr. 2, Canberra.
- Lee, D.J., M.M. Hicks, M.L. Debenham, M. Griffiths, E.N. Marks and J.H. Bryan. 1989b. The Culicidae of the Australasian Region. Volume 8. Entomol. Monogr. 2. Canberra.
- Lee, D.J., M.M. Hicks, M. Griffiths, M.L. Debenham, J.H. Bryan, R.C. Russell, M. Geary and E.N. Marks. 1988d. The Culicidae of the Australasian Region. Volume 6 Entomol. Monogr. 2, Canberra.

- Lei Xintian. 1989. A new species of Aedes (Ochlerotatus) (Diptera: Culicidae). (In Chinese). Sichuan J. Zool. 8:6-8.
- Linthicum, K.J. 1988. A revision of the Argyritarsis Section of the subgenus *Nyssor-hynchus* of *Anopheles* (Diptera: Culicidae). Mosq. Syst. 20:98–271.
- Liu Shuzhong and Lu Baolin. 1984. A new *Aedes* from China (Diptera: Culicidae). (In Chinese). Acta Zootaxonomica Sin. 9:76-79.
- Lourenco de Oliviera. R. 1983. Sobre uma nova especie de *Phoniomyia* (Diptera: Culicidae) do Rio de Janeiro, Brasil. Mem. Inst. Oswaldo Cruz Rio 78:501-505.
- Lourenco de Oliviera and L.M. Deane. 1984. What is *Anopheles allopha* (Lutz and Peryassu, 1921) (Diptera: Culicidae)? Mem. Inst. Oswaldo Cruz Rio 79:509-510.
- Lourenco de Oliviera, R. and T.F. da Silva. 1985. Wyeomyia forcipenis, a new species of mosquito (Diptera: Culicidae) from Rio de Janeiro, Brazil. Mem. Inst. Oswaldo Cruz Rio 80:321-326.
- Lourenco de Oliviera, R. and T.F. da Silva. 1987. *Culex siphanulatus*, a new species of mosquito from the coast of Rio de Janeiro state, Brazil (Diptera: Culicidae). Mem. Inst. Oswaldo Cruz Rio 82:101-110.
- Lourenco de Oliviera, R. and B. Townsend. 1989. On *Culex spinosus* Lutz, 1905 (Diptera: Culicidae). Designation of a neotype. Mem. Inst. Oswaldo Cruz Rio 84:431-433.
- Lu Baolin and Gong Zhenda. 1986. Studies on the genus *Heizmannia* of China with descriptions of two new species (Diptera: Culicidae). (In Chinese). Acta Entomol. Sin. 29:181-189.
- Lu Baolin, Dong Xueshu and Wang Xuezhong. 1986. A new species of subgenus *Topomyia* (Diptera: Culicidae). (In Chinese). Acta Zootaxonomica Sin. 11:406-408.
- Luh Paoling and Li Beisi. 1981. A new Armigeres from China (Diptera: Culicidae). (In Chinese). Acta Zootaxonomica Sin. 6:188-190.
- Luh Paoling and Shih Jingmin. 1958. New *Aedes* and *Armigeres* subspecies from Gu-

- angxi. (In Chinese). Military Med. 1:222–226.
- Ma Sufang. 1981. Studies on the *Anopheles* (A.) sinensis group of mosquitoes in China, including four new sibling species. (In Chinese). Sinozoologia 1:59-70, 4 pl.
- Ma Sufang. 1982. Diptera: Culicidae. (In Chinese). Insects of Xizang 2:157-163.
- Marks. E.N. 1976. Some mosquitoes (Culicidae) of Blackdown Tableland. Qd. Nat. 21:118.
- Mattos, S. da Silva and S.H. Xavier. 1991. Culex (Melanoconion) guedesi uma nova especie do Brasil (Diptera. Culicidae). Rev. Brasil. Biol. 51:193–196.
- McCabe, T.L. and L.M. Johnson. 1980. Catalogue of the types in the New York State Museum insect collection. N.Y. State Mus. Bull. 434: 38 pp.
- Minar, J. 1991. Family Culicidae, pp. 74–113. In: A. Soos and L. Papp (eds.), Catalogue of Palaearctic Diptera. Volume 2. Psychodidae—Chironomidae. Elsevier Science Publ. Co., New York.
- Miyagi, I. and T. Toma. 1989. A new species of *Topomyia* (*Suaymyia*) suchariti from Thailand (Diptera: Culicidae). Mosq. Syst. 21:16-24.
- Miyagi, I., T. Toma and S. Ramalingam. 1989. *Topomyia* (*Topomyia*) hardini, a new species from Sarawak. Malaysia (Diptera: Culicidae). Trop. Biomed. 6:91-98.
- Miyagi, I., T. Toma, K. Ramakrishna and S. Ramalingam. 1989. Studies of the genus *Topomvia*: 3. Redescription of *spathulirostris* and transfer to the subgenus *Suaymvia*. Mosq. Syst. 21:40-49.
- Miyagi, I., T. Toma and S. Ramalingam. 1991. *Topomyia* (*Topomyia*) *yongi*, a new species of mosquito from Peninsular Malaysia (Diptera: Culicidae). Mosq. Syst. (1990) 22:185-191.
- Nurul Huda, K.M. and B.A. Harrison. 1985. Priority of the name *Anopheles pseudojamesi* for the species previously called *An. ramsayi* (Diptera: Culicidae). Mosq. Syst. 17:49-51.
- Peyton, E. L. 1977. Medical entomology studies—X. A revision of the subgenus *Pseu-*

- doficalbia of the genus *Uranotaenia* in Southeast Asia (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 14(3):1–273.
- Peyton, E.L. and S. Ramalingam, 1988. Anopheles (Cellia) nemophilous, a new species of the Leucosphyrus Group from Peninsular Malaysia and Thailand (Diptera: Culicidae). Mosq. Syst. 20:272–299.
- Phan, V.T., N.D. Manh, T.D. Hinh and N.T. Vien. 1991. *Anopheles (Anopheles) cuc-phuongensis*: a new species from Vietnam (Diptera: Culicidae). Mosq. Syst. (1990) 22:145–148.
- Ramalingam. S. 1987. On the restriction of *Armigeres durhami* Edwards and the description of *Armigeres kesseli* n. sp. (Diptera: Culicidae). Trop. Biomed. 4:55-65.
- Ramalingam, S. 1988. Description of a new species of *Topomyia* from Peninsular Malaysia (Diptera: Culicidae). Mosq. Syst. (1987) 19:245–250.
- Ramalingam, S. and Q. Banu. 1987. Studies on the genus *Topomyia*: 2. Description of a new species from Sabah. Malaysia (Diptera: Culicidae). Trop. Biomed. 4:119–124.
- Ramalingam, S. and K. Ramakrishna. 1988. Studies on the genus *Topomyia*: 1. A new species from Sabah, Malaysia. Mosq. Syst. 20:33-40.
- Rattanarithikul, R. and C.A. Green. 1987. Formal recognition of the species of the *Anopheles maculatus* group (Diptera: Culicidae) occurring in Thailand, including the descriptions of two new species and a preliminary key to females. Mosq. Syst. (1986) 18:246–278.
- Rattanarithikul, R. and R.E. Harbach. 1991. *Anopheles maculatus* (Diptera: Culicidae) from the type locality of Hong Kong and two new species of the Maculatus Complex from the Philippines. Mosq. Syst. (1990) 22:160-183.
- Rattanarithikul, R. and B.A. Harrison. 1988. Aedes (Finlaya) reinerti. a new species from northern Thailand related to Aedes (Finlaya) formosensis Yamada (Diptera: Culicidae). Mosq. Syst. 20:77-96.
- Reinert, J.F. 1974. Medical entomology stud-

- ies—I. A new interpretation of the subgenus *Verrallina* of the genus *Aedes* (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 11(1):1-249.
- Reinert, J.F. 1984. Medical entomology studies—XVI. A review of the species of the subgenus Verrallina, genus Aedes, from Sri Lanka and a revised description of the subgenus (Diptera: Culicidae). Mosq. Syst. 16:1-130.
- Reinert, J.F. 1985. A description of *Scutomyia*, a subgenus resurrected from the Albolineatus Group of the genus *Aedes* (Diptera: Culicidae). Mosq. Syst. 17:121–131.
- Reinert, J.F. 1987. *Albuginosus*, a new subgenus of *Aedes* Meigen (Diptera: Culicidae) described from the Afrotropical Region. Mosq. Syst. (1986) 18:307–326.
- Reinert, J.F. 1988. Descriptions of the holotypes of Aedes (Finlaya) purpureus and Ae. (Fin.) pecuniosus with a revalidation of the latter species (Diptera: Culicidae). Mosq. Syst. 20:55-68.
- Reinert, J.F. 1990a. *Udaya subsimilis*, a new generic combination, a redescription of the holotype, and notes on the genus *Udaya* (Diptera: Culicidae). Mosq. Syst. (1989) 21:206–215.
- Reinert, J.F. 1990b. Medical entomology studies—XVII. Biosystematics of *Kenknightia*, a new subgenus of the mosquito genus Aedes from the Oriental Region (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Gainesville) 26(2):1-119.
- Ribeiro, H. 1991. Research on the mosquito subfamily Toxorhynchitinae (Diptera: Culicidae). I—The Afrotropical group Brevipalpis (Adults) (1). Arq. Mus. Bocage N.S. 2(3):31-62.
- Ribeiro, H., H. da Cunha Ramos, C.A. Pires and R.A. Capela. 1980. Research on the mosquitoes of Portugal (Diptera, Culicidae) IV—Two new anopheline records. Garcia de Orta Ser. Zool. 9:129-139, 2 pl.
- Ribeiro, H., H. da Cunha Ramos, C.A. Peres and R.A. Capela. 1987. Research of the mosquitoes of Portugal (Diptera, Culicidae) IX—A new anopheline record. Garcia de Orta Ser. Zool. (1985) 12:105-112, 1 pl.

Ribeiro, H., H. da Cunha Ramos, C.A. Pires and R.A. Capela. 1988. An annotated checklist of the mosquitoes of continental Portugal (Diptera Culicidae), pp. 233–253. Actas III Congr. Iberico Entomol., Granada.

- Rodhain, F. and A. Boutonnier. 1984. Le genre Orthopodomyia (Diptera: Culicidae) a Madagascar. Arch. Inst. Pasteur Madagascar (1983) 51:203-248.
- Rodhain, F. and A. Boutonnier. 1985. Checklist of the type specimens of mosquitoes (Diptera: Culicidae) in the Medical Entomology Collections of the Pasteur Institute in Paris. Mosq. Syst. (1984) 16:271-281.
- Rosa-Freitas, M.G. 1989. Anopheles (Nyssorhynchus) deaneorum: a new species in the albitarsis complex (Diptera: Culicidae). Mem. Inst. Oswaldo Cruz Rio 84:535-543.

. 1

- Rosa-Freitas, M.G. and L.M. Deane. 1989. The neotype of *Anopheles albitarsis* (Diptera: Culicidae). Mem. Inst. Oswaldo Cruz Rio 84:289-302.
- Rosenberg, R. and N.L. Evenhuis. 1985. A new species of *Toxorhynchites* from Bangladesh (Diptera: Culicidae). Mosq. Syst. 17:36-43.
- Sallum, M.A.M., K. Uramoto and O.P. Forattini. 1988. Redescription and resurrection from synonymy, of *Aedes (Ochlerotatus) rhyacophilus* Costa Lima, 1933. Mem. Inst. Oswaldo Cruz Rio 83:67-77.
- Sanchez-Covisa Villa, A., J.A. Rodriguez Rodriguez and J.L. Guillen Llera. 1985. Estudio de la larva de cuarto estado de las especies del subgenero *Finlaya* (Diptera: Culicidae) de Espana Peninsular. Bol. Soc. Port. Entomol. 1 (Suppl. 1):439-448.
- Segerman, J. 1990. A list of the type specimens of Culicidae housed in the Department of Medical Entomology at the South African Institute for Medical Research, Johannesburg, Mosq. Syst. 22:53-56.
- Service, M.W. 1990. Handbook to the Afrotropical toxorhynchitine and culicine mosquitoes, excepting *Aedes* and *Culex*. British Museum (Natural History), London.
- Shidrawi, G.R. and M.T. Gillies. 1988. Anopheles paltrinierii, n. sp., (Culicidae:

- Diptera) from the Sultanate of Oman. Mosq. Syst. (1987) 19:201-211.
- Sirivanakarn, S. 1968. The *Culex* subgenus *Lophoceraomyia* in New Guinea (Diptera: Culicidae). Pac. Insects Monogr. 17:75–186.
- Sirivanakarn, S. 1972. Contributions to the mosquito fauna of Southeast Asia. XIII. The genus *Culex*, subgenus *Eumelanomyia* Theobald in Southeast Asia and adjacent areas. Contrib. Am. Entomol. Inst. (Ann Arbor) 8(6):1–86.
- Sirivanakarn, S. 1976. Medical entomology studies—III. A revision of the subgenus *Culex* in the Oriental Region (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 12(2):1-272.
- Sirivanakarn, S. 1977. Medical entomology studies—VI. A revision of the subgenus *Lophoceraomyia* of the genus *Culex* in the Oriental Region (Diptera: Culicidae). Contrib. Am. Entomol. Inst. (Ann Arbor) 13(4):1-245.
- Snow, K.R. 1986. A note on the spelling of the name *Orthopodomyia pulcripalpis* (Rondani 1872). Mosq. Syst. (1985) 17:361-362.
- Stone, A. and R.M. Bohart. 1944. Studies on mosquitoes from the Philippine Islands and Australasia (Diptera: Culicidae). Proc. Entomol. Soc. Wash. 46:205-225.
- Stone, A., K.L. Knight and H. Starcke. 1959. A synoptic catalog of the mosquitoes of the world (Diptera, Culicidae). Thomas Say Found. 6:1-358.
- Strickman, D. 1988. Redescription of the holotype of *Culex* (*Culex*) peus Speiser and taxonomy of *Culex* (*Culex*) stigmatosoma Dyar and thriambus Dyar (Diptera: Culcidae). Proc. Entomol. Soc. Wash. 90:484-494.
- Strickman, D. 1990. Culex pseudostigmatosoma, Cx. yojoae and Cx. aquarius: new Central American species in the subgenus Culex (Diptera: Culicidae). Mosq. Syst. (1989) 21:143-177.
- Strickman, D. and J. Pratt. 1989. Redescription of Cx. corniger Theobald and elevation of Culex (Culex) lactator Dyar and

- Knab from synonymy based on specimens from Central America (Diptera: Culicidae). Proc. Entomoi. Soc. Wash. 91:551-574.
- Su Long and Zhang Yongsheng. 1987. A new species of the subgenus *Ochlerotatus* Lynch Arribalzaga (Diptera: Culicidae). (In Chinese). Acta Entomol. Sin. 30:450-452.
- Su Long and Zhang Yongsheng. 1988. A new species of *Aedes* (Diptera: Culicidae). (In Chinese). Entomotaxonomia 10:11-13.
- Sutil Oramas, E., J. Pulido F. and J.R. Amarista M. 1987. Dos especies nuevas de *Culex* de Venezuela (Diptera: Culicidae). Bol. Dir, Malariol. Saneam. Amb. 27:81–85.
- Szadziewski, R. and M.M. Szadziewska. 1985. *Culex erikae* sp. n. (Diptera, Culicidae) from the Baltic amber. Polskie Pismo Entomol. 55:513–518.
- Taylor, F.H. 1914. Culicidae from Papua. Trans. R. Entomol. Soc. Lond. 1914:185–205, 2 pl.
- Tewari, S. C. and J. Hiriyan. 1992. Description of a r. species of *Aedes (Rhinoskusea)* from South India. Mosq. Syst. (1991) 23:123-131.
- Toma, T., I. Miyagi and B.D. Cabrera. 1984. Culex (Culiciomyia) azurini, a new crab hole mosquito species from the Philippines. Mosq. Syst. 16:172–182.
- Toma, T., I. Miyagi and K. Tanaka. 1990. A new species of *Toxorhynchites* mosquito (Diptera: Culicidae) from the Ryukyu Archipelago, Japan. J. Med. Entomol. 27:344–355.
- Townsend, B.C. 1990. Culicidae, pp. 35-152. In: B.C. Townsend, J.E. Chainey, R.W. Crosskey, A.C. Pont, R.P. Lane, J.P.T. Boorman and C.A. Crouch (eds.). A catalogue of the types of bloodsucking flies. Occas. Pap. Nat. Hist. Mus. (London) No. 7.
- Tsukamoto, M. 1989. Two new mosquito species from a pitcher plant of Mt. Kinabalu, Sabah, Malaysia: *Culex rajah* and *Toxorhynchites rajah* (Diptera: Culicidae). Jpn. J. Trop. Med. Hyg. 17:215-228.
- Wang Xingxiang. 1984. Description of a new *Culex* species (Diptera: Culicidae). (In Chinese). Acta Entomol. Sin. 27:217-220.

- Ward, R.A. 1984. Second supplement to "A catalogue of the mosquitoes of the world" (Diptera: Culicidae). Mosq. Syst. 16:227–270.
- Ward, R.A. 1987. Nomenclatoral status and some additions to the species listed in the publication. *New species of mosquitoes in the fauna of the USSR* by A.V. Gutsevich and A.M. Dubitskiy (1981). Mosq. Syst. 19:93-99.
- Weaver, S.C., W.F. Scherer, C.D. Taylor, D.A. Castello and E.W. Cupp. 1986. Laboratory vector competence of *Culex* (*Melanoconion*) *cedecei* for sympatric and allopatric Venezuelan equine encephalomyelitis viruses. Am. J. Trop. Med. Hyg. 35:619–623.
- White, G.B. 1985. Anopheles bwambae sp. n., a malaria vector in the Semliki Valley, Uganda, and its relationships with other sibling species of the An. gambiae complex (Diptera: Culicidae). Syst. Entomol. 10:501-522
- Wilkerson, R.C. 1990a. Elevation of Anopheles chiriquiensis from synonymy with Anopheles parapunctipennis and designation of name-bearing types for Anopheles parapunctipennis guatemalensis (Diptera: Culicidae). Mosq. Syst. (1989) 21:178–187.
- Wilkerson, R.C. 1990b. Redescriptions of Anopheles punctimacula and An. malefactor (Diptera: Culicidae). J. Med. Entomol. 27:225-247.
- Wilkerson, R.C. 1991. Anopheles (Anopheles) calderoni n. sp., a malaria vector of the Arribalzagia Series from Peru (Diptera: Culicidae). Mosq. Syst. 23:25-38.
- Xavier, S.H. and S. da Silva Mattos. 1989. Mosquito types of Brazil—Supplement. Mosq. Syst. 21:50.
- Zavortink, T.J. 1968. Mosquito studies (Diptera, Culicidae) VIII. A prodrome of the genus Orthopodomyia. Contrib. Am. Entomol. Inst. (Ann Arbor) 3(2):1-221.
- Zavortink, T.J. 1986. Zinzala, a new subgenus of Wyeomyia with two new species from pitcher-plants in Venezuela (Diptera, Culicidae, Sabethini). Wassman J. Biol. (1985) 43:46-59.

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